THE CRUISE OF THE MARCHESA


A GENERAL CHART TO SHEW THE TRACK OF THE "MARCHESA"
NOTE: Separate Maps are given of the places named in thick letters, thus... Sulu.
EUROPE
ASIA
AFRICA
AUSTRALIA
BRITISH ISLES
Alaska
Okhotsk Sea
Kamschatka
Seal Islands
Vancouver I.
Peking
JAPAN
Formosa
NORTH PACIFIC OCEAN
Tropic of Cancer
Tropic of Capricorn
Equator
Azores
Gibraltar
Madeira
Canary Is.
C. Verde
Red Sea
Perim
Aden
Socotra
INDIA
Calcutta
Bombay
Ceylon
Philippine
Sulu
Celebes
Moluccas
New Guinea
Labuan
Singapore
Borneo
Sumatra
Batavia
Sumbawa
Chagos Is.
Lagos
Gold Coast
CONGO
Ascension
St. Helena
Walfish B.
MADAGASCAR
Mauritius
Natal
Cape Town
Cape of Good Hope
St. Paul I.
New Zealand
40 Long. W. of 20 Greenwich. 0 Long. E. of 20 Greenwich. 40 60 80 100 120 140 160 180 160 140 120
Stanford's, Geog.l Estab.t London.

THE

CRUISE OF THE MARCHESA

TO

KAMSCHATKA & NEW GUINEA

WITH NOTICES OF FORMOSA, LIU-KIU, AND VARIOUS ISLANDS OF THE MALAY ARCHIPELAGO

BY

F. H. H. GUILLEMARD

M.A., M.D. (CANTAB.)

FELLOW OF THE LINNEAN SOCIETY; FELLOW OF THE ROYAL GEOGRAPHICAL SOCIETY
FELLOW OF THE ZOOLOGICAL SOCIETY, ETC. ETC.

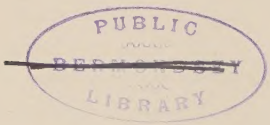
With Maps and numerous Woodcuts

DRAWN BY J. KEULEMANS, C. WHYMPER, AND OTHERS
AND ENGRAVED BY EDWARD WHYMPER

'Ignotis errare locis, ignota videre
Flumina gaudebat, studio minuente laborem'
Ovid. Metam. iv. 294

SECOND EDITION

LONDON
JOHN MURRAY, ALBEMARLE STREET
1889



Printed by R. & R. CLARK, *Edinburgh.*

TO

Charles Thomas Kettlewell

TO WHOM I OWE THIS

ONE OF THE PLEASANTEST OF MANY PLEASANT CRUISES

I DEDICATE THIS BOOK

PREFACE.

A FEW words are perhaps necessary by way of introduction to the following pages.

The *Marchesa*, an auxiliary screw schooner yacht of 420 tons, Mr. C. T. Kettlewell captain and owner, was commissioned in the Clyde in November 1881, and left Cowes on the 8th of January following. She reached Colombo April 24th, having touched at Socotra and Oolegaum Island, one of the Maldive group, on her way from Aden. From Ceylon she proceeded *viâ* Singapore to Formosa and the Liu-kiu Islands, and thence to Japan. She left Yokohama for Kamschatka July 29th, returning thither from the north on the 6th of October. On the second visit to Japan four months were spent in the country, and the yacht then proceeded for a six weeks' cruise in Chinese waters. Leaving Hongkong at the end of March, 1883, some weeks were devoted to exploring the little-known islands of the Sulu Archipelago, and to visiting the territory of the North Borneo Company. The *Marchesa* then returned to Singapore to take in stores, and proceeded *viâ* Sumbawa, Celebes, and various other islands of the Malay Archipelago to New Guinea. In her homeward voyage she again visited the Straits Settlements and Ceylon, and calling at Bombay, finally reached Southampton April 14th, 1884.

To such countries as Ceylon and Japan, and others which lie in the beaten path of the tourist round the world, I have not thought it necessary to allude, confining myself entirely to an account of the less-known lands and islands in which our time

was chiefly spent. "It is the fate of most voyagers no sooner to discover what is most interesting in any locality than they are hurried from it," Darwin tells us; and the sentiment often found an echo in our own minds when, as from various causes occasionally happened, our stay at some of these places was but short. This was especially the case with regard to the Liu-kiu Islands—a most interesting group which run the risk of being left unexplored by Europeans until the wave of Japanese civilisation has swept every particle of its originality from the country.

With regard to the *Marchesa's* cruise in the Eastern Archipelago I had to contend with the fact that, in many places, that master naturalist, Mr. A. R. Wallace, had preceded us. Nothing could be more fortunate for a traveller, nothing more disadvantageous to an author. The "Malay Archipelago" may still be used as the guide-book for those beautiful islands, for they have been almost untouched by the great changes which Europe has witnessed during the last quarter century, and I have but little to add to or take from the descriptions of one far more fitted to treat of them than myself.

Our stay in the Sulu Islands extended over a period of about six weeks. Mr. Burbidge's examination of the flora of the group,[1] together with our collections of its fauna, show that the archipelago is not zoographically separable from the Philippines. Westwards of the island of Tawi-tawi the narrow Sibutu channel forms a boundary-line from greatly-differing Borneo, which is almost as striking as that shown by Mr Wallace to exist between Bali and Lombok.

From the Malay and Papuan regions the *Marchesa* returned with a large collection of objects of Natural History. Of these the greater portion were obtained in the large islands of North-west New Guinea. One of our chief objects was to become acquainted with the Birds of Paradise in their native forests, and in this we were entirely successful, obtaining no less than seventeen different species. The collection of birds numbered about 3000 specimens, which I have described in a series of papers in the "Proceedings of the Zoological Society" for 1885.

[1] "The Gardens of the Sun," F. W. Burbidge, p. 343.

The Coleoptera, of which there were some thousands, are as yet unworked. A few shells and butterflies were obtained. The former were kindly named for me by my friend the Rev. A. H. Cooke, of Cambridge. The butterflies—of which there were about 100 different species—have been listed, and the new species described by Mr. Oliver Janson.

The very large number of photographic negatives we brought back rendered the choice of subjects for engraving a matter of some difficulty. Very great care has been bestowed upon the illustrations, and I can fearlessly claim for them that—at least in point of accuracy—they can hardly be improved, for with a few exceptions they are reproductions of our photographs. The engraving of the blocks has been entrusted to Mr. Edward Whymper; Mr. Keulemans and Mr. Charles Whymper have respectively drawn the birds and animals, while to Mr. H. C. S. Wright, Mr. Stacey, and others I am indebted for the interpretation of some of my rough sketches.

In the following pages I have confined myself almost entirely to the record of facts, leaving my readers to draw their own conclusions and form their own theories as they please. It may be wondered why I have not touched in any way upon the political aspects of the British annexation in New Guinea, or spoken of the probable future of our new possessions. The reason is simple. The cruise of the *Marchesa* in Papuan waters was entirely confined to the northern and western portions, which belong to the Dutch, and the knowledge of one extremity of an island 1500 miles in length qualifies one as little to speak of the other, as a visit to Spain would justify one in describing Turkey.

To attempt individually to thank the numerous friends who helped and welcomed us in our wanderings would indeed be a herculean task. Within the limits of a preface it would be an impossibility. English hospitality has become proverbial, but the traveller finds that it is cosmopolitan, flourishing beneath the Equator just as freely as in the British Isles, dispensed indifferently by European and Asiatic. Should they read these lines, I hope that those at whose hands we received it will accept our most hearty thanks.

In conclusion I must ask my readers' indulgence for the many imperfections contained in this account of the *Marchesa's* cruise. If, however, I can give him a tithe of the pleasure we experienced amid the magnificent scenery of Kamschatka, or in the jungles of New Guinea, I shall be more than fortunate. In these latter regions there is indeed but one thing that mars the traveller's enjoyment. The book of Nature lies freely open to him, but without years of study he cannot read it. It is written in an unknown language. He is confused with the unfamiliarity of the character and the apparently insuperable obstacles it presents. Such at least were my own feelings, although travel in tropic lands was no new thing to me. The few sentences I have deciphered have for the most part, I fear, been already translated by others, and in giving them to my readers I can only express my regret that Nature's volume has not met with a better exponent.

PREFACE TO SECOND EDITION.

In the present Edition the reduction to one volume has necessitated the omission of the Appendices, together with the Chapter on the History of Kamschatka. The two hand-coloured plates of birds have also been omitted, but with these exceptions both text and woodcuts remain the same as in the First Edition.

F. H. H. GUILLEMARD.

Cambridge, *December*, 1888.

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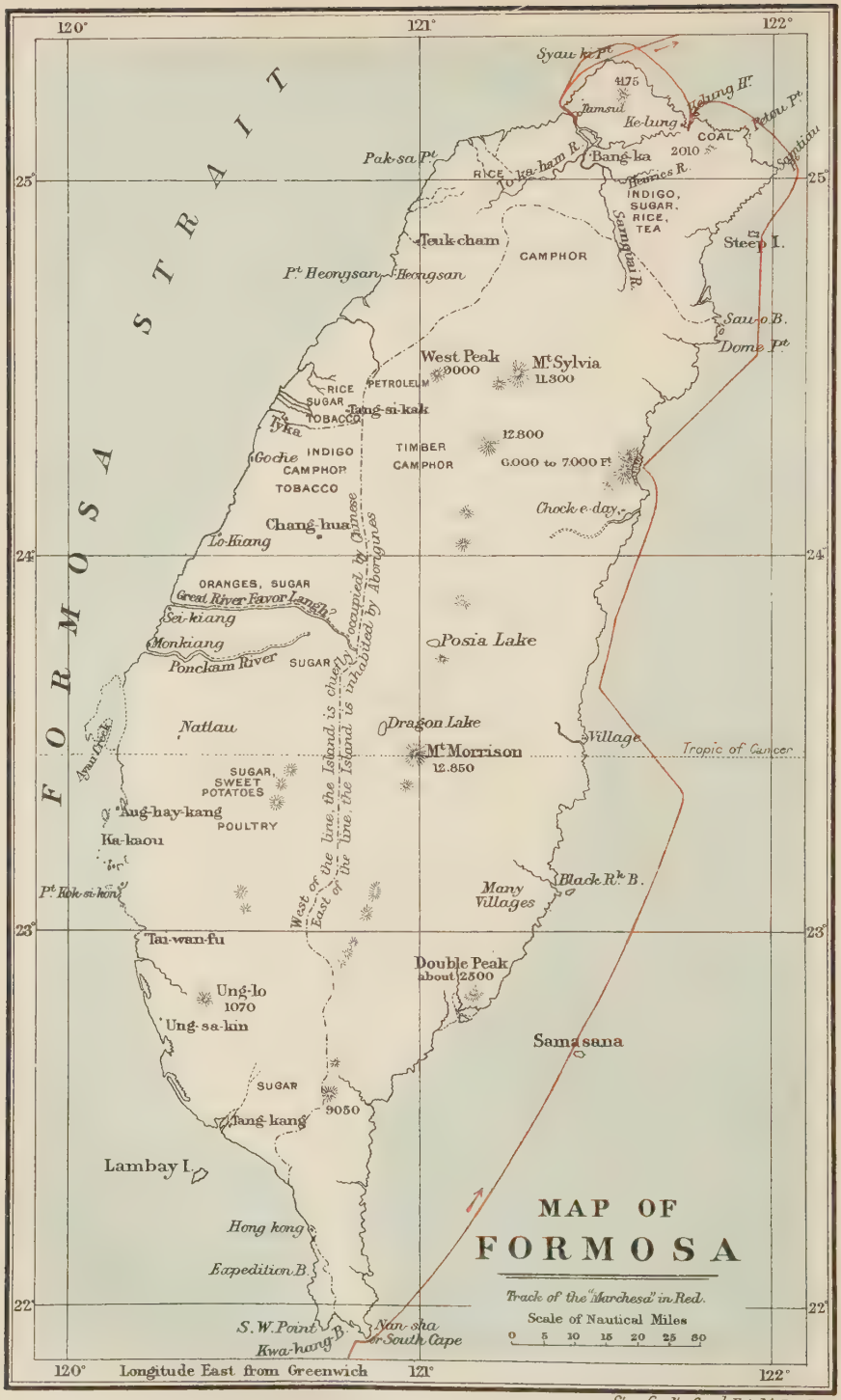


Stanford's, Geogl. Estabt. London

CRUISE OF THE YACHT MARCHESA.

CHAPTER I.

FORMOSA.

HOWEVER *blasé* or dis-illusioned a traveller may have become, there must surely be something in the first glimpse of a new land to arouse in him a more than ordinary interest. His last expedition has been, perhaps, a failure. He has projected a book on the religions of West Africa, and has discovered that the gods he has intended for illustration have been constructed in Birmingham; or he has been hunting in the far interior of the Dark Continent, and has found a billiard table and a Good Templars' Lodge where he had hoped for elephants.[1] If he be a naturalist he has possibly experienced more instances than he could wish of the destructive powers of the white ant, or, worse fate still, he has reached his journey's end with no collections to destroy. But, with a new country lying before him, all these recollections vanish, and, even if its exploration be impracticable, he none the less conjures up the images of its infinite possibilities.

It was with some such thoughts as these in my mind, that I found myself gazing one morning in June, 1882, at the southern point of the island of Formosa, regretting that we had but a few days to devote to it. Day was just breaking, and our new acquaintance seemed to wish to show herself under her most attractive aspect. A calm sea, brushed into crisp ripples by the early morning breeze, led the eye up to a wide stretch of bay lying right ahead of us. Range after range of thickly-wooded hills, which in England would have done duty for mountains, rose behind, and, tinged with the flush of a tropic sunrise, seemed to

[1] These two evidences of civilisation are—or rather were in 1877, actually in existence at Molipolele, the capital of Sechele's country, more than a thousand miles north of Cape Town by road.

belie the evil reputation attaching to this coast. "You must know," says old Candidius in his "Account of the Island Formosa,"[1] "that these natives are very wild and barbarous, and that a certain ship call'd the *Golden Lion* being driven upon the coast by tempest, they kill'd the captain and most of his crew." That they did not always confine themselves merely to the murder of any one unlucky enough to escape drowning is a well-known fact, and it is probable that, even at the present day, cannibalism still exists among certain native tribes. To the west the Chinese have held possession for two or three centuries or more, but certain death awaited every one shipwrecked on the eastern and southern shores of the island, for the head-hunting propensities of some of the Formosans are as keen as those of any Dyak. It was not, however, until the massacre of the entire crew of the American ship *Rover* had occurred that any steps were taken to mend matters. General Le Gendre, the United States Consul at Amoy, at length succeeded, in October, 1867, in concluding a treaty with Tok-e-tok, the paramount chief of the tribes of the southern district, by which the latter engaged to protect any stranger who might land, and to permit of the erection of a fort as a refuge for shipwrecked mariners. A still further point was gained in November, 1881, when, after considerable difficulties, a lighthouse was erected at Nan-sha, or Wo-lan-pi, the southern promontory of the island. This part of Formosa may now be considered tolerably safe, but for any one in search of adventure, the east coast still remains open. It is more than doubtful, however, whether the results of the explorer's experiences would ever be given to the world.

We ran in towards the land to reconnoitre the fort to which I have just alluded, and made out the Chinese flag which was hoisted above it. We had, however, no intention of landing, and on rounding the Nan-sha Cape altered course for the little island of Samasana. Aided by the Kurosiwo or Japanese current, which sweeps up the eastern side of Formosa at the rate of from thirty to forty miles a day, we passed the coast rapidly, and finally dropped anchor about noon in a bay on the north-west side of the island.

Samasana was visited by Sir Edward Belcher in the *Samarang* in 1845, and again by H.M.S. *Sylvia* in 1867, but we could not discover that any other vessel had been there subsequently. It is a small island, hardly two miles in length, chiefly composed of coralline limestone, which at the western point forms curiously-shaped pinnacles of rock, pierced in places with high arches. We were soon in communication with the natives, who are partly the descendants of Chinese from the Amoy province, intermixed, to judge from the darkness of their skin and other characteristics, with Formosan aborigines, or possibly with natives of the Meiacosima, or Liu-kiu islands. They had brought off

[1] Churchill's "Collection of Voyages and Travels," vol. i. p. 529.

some vegetables in their clumsy-looking sampans, which they bartered for tobacco and handkerchiefs, and made signs to us that, if necessary, more could be obtained. We rowed ashore through a curious little channel cut in the coral reef to enable boats to be launched at all states of the tide, and found that the whole village had turned out *en masse* to inspect us. The people were in many respects unlike the Chinese in appearance, being guiltless of pig-tail, and wearing the hair in a tangled mass behind. The huts were mud-built, and roofed with the leaves of the Pandanus, which grew in abundance throughout the island. Tied up to stakes in close proximity to them were several of the beautiful species of spotted deer peculiar to Formosa (*Cervus pseudaxis*). Almost all of these were without one or other of the fore feet, most probably the result of having been caught in a trap. They had been brought over to the island as pets, and were exceedingly tame, but, somewhat to our disappointment, the natives were unwilling to part with them. In other respects, however, they were most eager to please us, asking us into their huts to rest, and presenting us with eggs and vegetables. As, however, we had more designs on the fauna than the products of the island, we started at once for the south-east side, hoping to pick up some birds and insects on our way. The crowd that accompanied us unluckily frustrated all our hopes, and we arrived at our destination empty-handed, and somewhat glad of a rest, which the villagers who had come over with us, in their anxiety to show us off to their friends, seemed by no means disposed to allow us. The island appeared to be fairly well cultivated, the chief crops being rice, Indian corn, and sweet potato, but the wilder parts, abounding in pretty valleys clothed with thick underwood, we had unfortunately no time to explore. From the south-east cape a coral reef stretches straight out to sea for a distance of two or three miles, on which a tremendous sea was breaking—the strong south-easterly wind of the morning having freshened into a gale.

On our return we were for the nonce appointed Inspectors of Schools for the Republic of Samasana. We found the children collected in one of the usual mud huts, in charge of the first true Chinaman we had as yet seen on the island—an old gentleman of benevolent aspect, who was evidently much pleased by our visit. His pupils were learning their letters, but owing to our own ignorance of them we were unable to obtain a good deal of information which would have been most interesting to us. It speaks well indeed for the character of the islanders that such an institution should exist in so desolate a spot, where communication with China can only be of the rarest occurrence.

The wind still holding from the S.E., though somewhat stronger than we wished, we decided to sail for Formosa, regretting that we

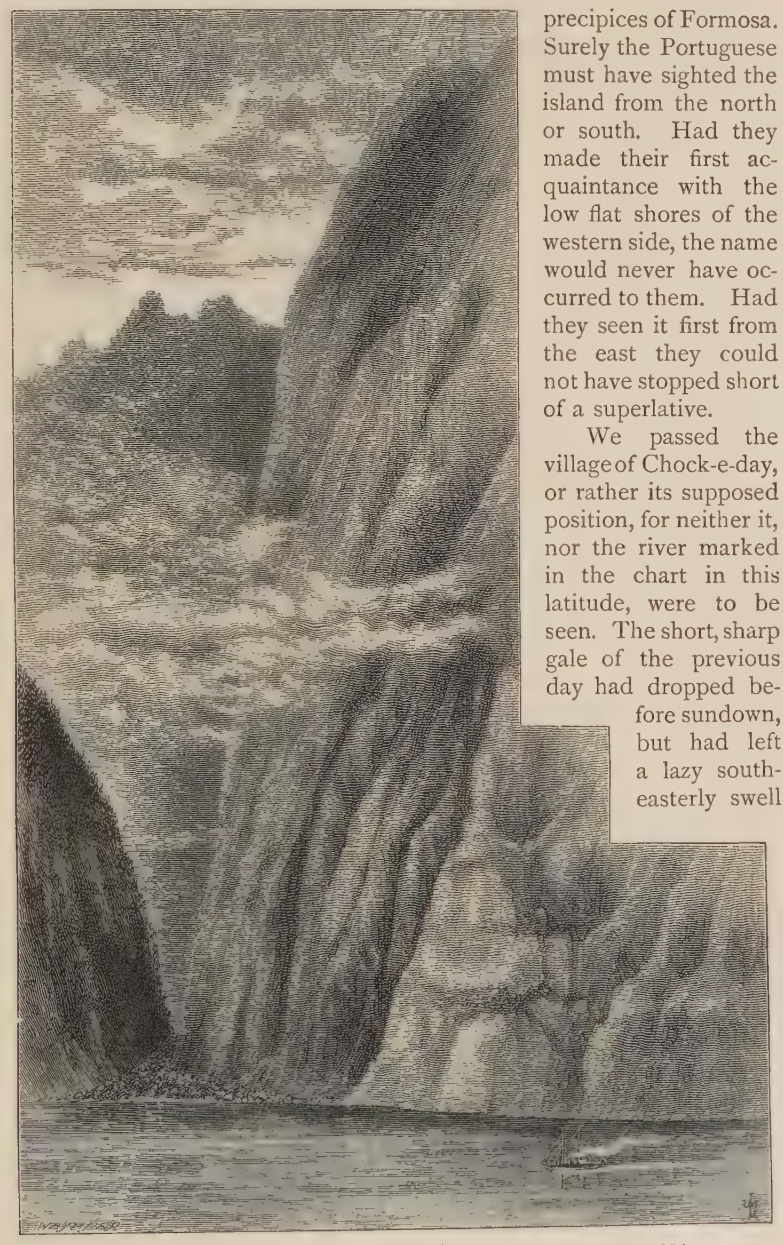
had been unable to devote more time to this ultimate of Ultima Thules, and wondering for how many years the remembrance of our visit would remain an epoch in the Samasanan calendar.

When that useful but most prosaic publication, the "China Sea Directory," ventures upon superlatives, there is generally some tolerably good reason for it. "The coast from Chock-e-day to the northward," it informs us, "is the boldest and most precipitous that can be conceived, the mountains rising 7000 feet almost perpendicularly from the water's edge." Attracted by this, which may be safely termed a very respectable height for a sea-cliff, we decided to explore the coast and see if a tolerable anchorage and landing could be obtained, undeterred by the further information that "the aborigines were nearly naked, and used threatening gestures, brandishing their long knives and spears" when Commander Brooker attempted to communicate with them. We set our course northward at reduced speed during the night, and at dawn the mountains, shrouded in an impenetrable gloom of heavy clouds, loomed dimly through the mist on our port hand. We altered course, and crept in slowly towards them. Slowly the sun rose, and flushed the highest peak into a crimson glow. Beneath, the dark pall of clouds still hung, revealing here and there in its rents a region of still deeper gloom behind, and pouring its masses of sombre vapour across the face of the mighty cliffs. The sun, as yet invisible to us, had flecked the dull gray of the sky above us with scattered lines of pink, and as our little ship heaved lazily to the long easterly swell we gazed spell-bound across an inky sea at a sight which, even to the most phlegmatic among us, seemed beyond expression magnificent. Higher and higher the misty curtain lifted, now hiding, now disclosing peak and pinnacle and gorge. Broader and broader grew the line of rosy light, thinner and brighter the veil of cloud. Day had conquered night, and, at last, distinct and clear, save where, half way up its face, a thin long line of snow-white cloud hung motionless, the highest sea precipice in the known world lay unveiled before our eyes. It was superb.

There are few more stupendous cliffs than those of the Yosemite Valley in California, and if any one wishes for a sensation of height, combined with others, to a novice, of a less pleasing nature, he has only to

> "Hang half-way down,
> As one that gathers samphire—dreadful trade,"

in search of birds' eggs over the grand sea-wall of Hoy in the Orkneys. I have dropped my pebble over the edge of the 2000 feet of perpendicularity which the Penha D'aguia in Madeira opposes to the Atlantic surges, and have admired the glories of the iron-bound coast of Norway. But all these fade into nothingness beside the giant



GORGE AND PRECIPICE (5000 FEET,) EAST COAST OF FORMOSA.

precipices of Formosa. Surely the Portuguese must have sighted the island from the north or south. Had they made their first acquaintance with the low flat shores of the western side, the name would never have occurred to them. Had they seen it first from the east they could not have stopped short of a superlative.

We passed the village of Chock-e-day, or rather its supposed position, for neither it, nor the river marked in the chart in this latitude, were to be seen. The short, sharp gale of the previous day had dropped before sundown, but had left a lazy southeasterly swell

behind it, which caused the *Marchesa* to roll steadily. We kept close in to the land, the appearance of which, if possible, increased in grandeur. The gigantic wall of rock is cleft every few miles by huge gorges, which in the rainy season must pour immense volumes of water into the sea, as is evident from the size of the boulders in their beds. Now, however, they were dry, or nearly so, and looked tempting enough, forming as they did a practicable highway into the interior, which is otherwise well-nigh inaccessible, owing to the denseness of the vegetation. Off the mouth of one of these, in a position that noon observations gave us as 24° 14′ N., we ran closer in-shore, with the intention, if possible, of anchoring, but, getting no soundings with 100 fathoms, we decided that it would be better to keep the ship standing off and on rather than to risk a nearer approach to a country where, in the event of anything occurring, we were far more likely to provide food for others than to obtain it for ourselves. The lifeboat was accordingly lowered, and the crew having been armed with Martinis and revolvers in case of need, two of us proceeded ashore. The landing was very successful, in spite of the heavy surf, but, considering that, in case of an attack, the boat would be better lying off a little distance from the shore, she was re-launched, an operation which took some little time, and which resulted in her becoming more than half filled with water.

The valley was grand in the extreme. The entrance was guarded by magnificent cliffs, which rose to a height of over five thousand feet, the lower third being almost perpendicular. Excepting on the sea face, these mountains were clothed from base to summit with the densest vegetation, of which the rattan and innumerable ferns formed a conspicuous feature. The river bed, composed of large, water-worn quartz pebbles, was dry, save for the presence of a small stream of clear and ice-cold water. It was barely 500 yards in width, and narrowed rapidly as we advanced, the mountains rising almost straight up on either side for some thousands of feet, and effectually precluding any attempt to penetrate the jungle. Continuing onwards for a couple of miles, and rounding an abrupt bend in the valley, the river bed widened out into a sort of circular basin, and a view of unsurpassed magnificence lay before us. At the farther end the river was seen to debouch by a narrow gorge into the pebbly amphitheatre at our feet. The mountains had closed in, and towered above it to a yet greater height than those we had left behind us, ridge crossing ridge in glorious confusion; a chaotic jumble of Nature on a Titanic scale, over which the densest tangle of tropic vegetation ran riot.

> "A valley terrible
> As that dim gulf, where sense and being swoon
> When the soul parts; a giant chasm strewn
> With giant rocks—asleep, and vast, and still."

It was hard, indeed, at this juncture, to have to turn back. But, alas! the commonest prudence dictated a retreat without loss of time. For an hour or more the strong breeze blowing up the valley had warned us that, before long, all communication with the ship might be cut off, a contingency that we hardly cared to contemplate, so, reluctantly enough, we set our faces seaward. On our return we crossed our old track by the side of the little stream, and, to our astonishment, came upon the fresh footprint of a native who had evidently been reconnoitring our movements. Possibly he had foreseen that there might be some difficulty in adding the four white heads to his collection; possibly he was not unwilling that his friends should share in the amusement. At any rate he had disappeared, no very difficult matter in the thick bush around us, and we saw no further trace of any human being, although, some little distance beyond, we came upon the ruins of an evidently long-deserted hut. On getting to the beach we found the surf too high to admit of bringing in the boat, and accordingly had to swim out to it; an operation that, with our guns and other gear, was a somewhat protracted one, though greatly facilitated by a life-belt and line, which had been brought in case of need. The wind and sea had increased considerably since the morning, and our prolonged absence caused no little anxiety to those on board. The signal guns that had been fired for the recall of the party had been inaudible, a contingency that had never been suspected, and it was feared that the delay in our appearance might be due to a collision with the natives.

From a naturalist's point of view the excursion had been a failure. One solitary bird only had been seen, and, but for a large snake[1] which had been caught napping among the hot stones in the bed of the valley, our game bag would have been empty. As it was, however, it was most uncomfortably full, for the creature measured nearly nine feet in length, and was of very respectable thickness. Other game there was none to be seen, although spoor both of deer and wild cat appeared tolerably abundant, and to judge by the numbers we had seen captive in Samasana, the former must be in some parts extremely common. We had hoped to obtain it, and possibly also Swinhoe's deer, another species peculiar to the island, but the absence of anchorages and the exposed nature of the coast rendered a further stay inadvisable, and we accordingly shaped our course for the port of Keelung at the northern end of the island, passing Steep Island, singularly bold and picturesque in outline, on our way.

Keelung is Chinese; markedly so, indeed, as far as regards the dirt and odours of the place. That it is beautiful goes, of course,

[1] A very handsome species, *Ptyas mucosus*, the under surface golden yellow, and the back dark, shot with bright opalescent reflections.

without saying, for it is on an island which, save for its western coast, deserves an even more flattering name than that bestowed upon it by its discoverers. Its beauty is the beauty of a labyrinthine mingling of sea and land, of the light green foliage of the feathery bamboos, of quaintly situated huts, and of the still quainter pinnacles and cliffs so characteristic of the limestone formation. But its enchantment, as is the case in most places where the Celestial has had anything to do

STEEP ISLAND, FORMOSA.

with the landscape, is a loan from distance, and a nearer acquaintance introduces one to a million unsavourinesses to which the occidental barbarian is happily a stranger. Fortunately, however, even the "most ancient and fish-like smell" can in no way affect the utility of a harbour, and the town owes its prosperity not only to the proximity of the coal-beds, but also to the fact that the port is one of the very few worthy of the name throughout the whole island. The two hundred miles of cliffs and precipices that face the surges of the North Pacific afford no shelter whatever save the solitary bay of Sau-o. The very difference of the coast on the western side produces the same result, and the shallow ports of Takau and Taiwan are of but little use to European shipping. So Tamsui and Keelung to the north alone remain to dispute the palm, and, although the former can claim a considerably larger interior trade, Keelung can safely rely upon her coal-fields for supremacy until electricity shall have supplanted steam.

We found our Acting Consul the only Englishman in the port, and, thanks to his kindness, our visit was a most pleasant one. The country round is charming in its rich green dress of bamboo groves and paddy, and in the enjoyment of it one momentarily forgets the far from Arabian odours that have to be encountered on one's return to the town. Japan in summer is unpleasant; China more than occasionally oversteps the limits of one's powers of endurance. But

for breadth and expression, for solidity, tone, and execution, the perfumes of Keelung must rank far above those of either. Here the Sanitary Inspector existeth not, and carbolic is a thing unknown. No respectable disease can complain of not having a fair field. By all the laws that modern science has taught us, by all our researches in micro-organisms, by every sacred axiom of Medicine, we can confidently predict the certain death of every inhabitant in the course of the next two or three days, although, with the habitual caution of a physician, we may admit the possibility of one or two of the strongest lingering until the end of the week. But next day everything is as usual, and the fat old gentleman who constructs the queer little boats that in China do duty for coffins does not seem to be suffering from any particular press of business. It is a hard matter to have to rid oneself of long cherished beliefs, but a prolonged residence in a Chinese city would, I feel sure, result in shaking the convictions of the fiercest sanitarian, and in time convert him to the advantages of the union of the main drain and the King's highway.

There is, of course, a waterfall at Keelung. So charming a place would be incomplete without one, and our visit equally so had we omitted to see it. So, packing ourselves away with some difficulty in the Chinese chairs provided for us, and commending ourselves to Kwan-yin, the Goddess of Mercy, during our passage through the town, we started on our journey. It was a Dragon Feast, and the streets were crowded with people. In the notion that enjoyment and noise are inseparably connected, the Chinese do not differ from other more western nations, and the processions carrying the emblems were surrounded by a yelling, tom-tom-beating mass of humanity. In the harbour below us, boat processions of a similar nature were taking place. We struggled on through the narrow streets, past pigs wallowing in pink mud, past half-naked men devouring the unknown horrors of a Chinese dinner, past pools of filth and garbage indescribable, till on the outskirts of the town we were once more able to breathe freely. The heat was intense, and the cramped position necessitated by the native chairs rendered it so oppressive that we were only too glad to get out and pick our way on foot along the narrow paths between the rice-fields. Our way led up a little valley, the sides of which were luxuriantly clothed with bamboo. There are said to be no less than thirteen varieties of this plant in Formosa, and it is certainly one of the leading characteristics of the scenery at the northern part of the island. In no other part of the world have I seen the plumy foliage of so bright a green, or the sprays so light and feathery. Here it was of no great size, but on the western coast it is said to attain a height of nearly a hundred feet. We were not sorry to find ourselves at our journey's end, and, buried in masses of fern and moss, to lie and watch

the little stream plunging into the cool, dark basin below. The island has, doubtless, many a mighty fall as yet unviewed by European eyes, deep in the heart of those magnificent mountains that have for so long remained a sealed book to us. But at that moment we would not have exchanged them for the quiet little cascade tinkling at our feet, and the feeling of placid enjoyment, unknown to those to whom the land of coral and of coconut are a dead letter, was broken only by the thoughts of our return, and a dim vision of the horrors of Keelung.

We returned to the realities of life on getting aboard, for we discovered that the operation of coaling, which we had hoped to avoid, was only half completed. The Formosan coal, which was first discovered in 1847, is supposed to underlie a considerable portion of the island, though as yet very little has been done to determine the extent of the beds. The Keelung district is the only locality where it is at present worked, and at no great distance from the town there are surface outcrops at several points. It is of a bituminous nature, and the quality, though good for domestic and such-like purposes, is not very suitable for shipping, as it burns too rapidly and produces much smoke, while a still further objection lies in its liability to cake the furnaces. The Chinese for a long time worked the mines in the most primitive fashion, and many shafts were abandoned, owing to their having become flooded. But in 1876 English miners were imported, and at the present time there are several engaged in the superintendence of the collieries, and the output has been steadily increasing. Thus the export, which in 1871 amounted to 18,671 tons only, had risen in 1881 to 46,178 tons, and it has been estimated that as much as 500 tons *per diem* could be turned out without much difficulty.

We had contemplated going overland to Tamsui if possible, sending the yacht round to meet us at that port, and we were pleased to find that the journey was feasible. Starting at 4 A.M. on the morning of the 25th June we passed through the town, and ascending the hills behind it, reached a bare ridge which commanded a magnificent view of the harbour and islands below us. Dawn was giving place to daybreak, and the eastern sky and sea were flooded with streaks of blue and rosy light. The lake-like calm of the harbour was only broken here and there where a faint line of rippling on its mirror-like surface showed the track of some lazily-moving junk. A faint blue mist hung over the town, and away seawards the sharp pinnacles at the harbour's entrance stood out ink-black against the burnished surface of the water. We watched the scene as long as we dared, for our time was limited, and then once more continued the ascent. Before long we reached the ridge which forms the boundary of the amphitheatre of Keelung, and for the first time we were enabled to get a view of the country inland. A succession of hills of peculiar formation lay before us, sloping gradually to the eastward,

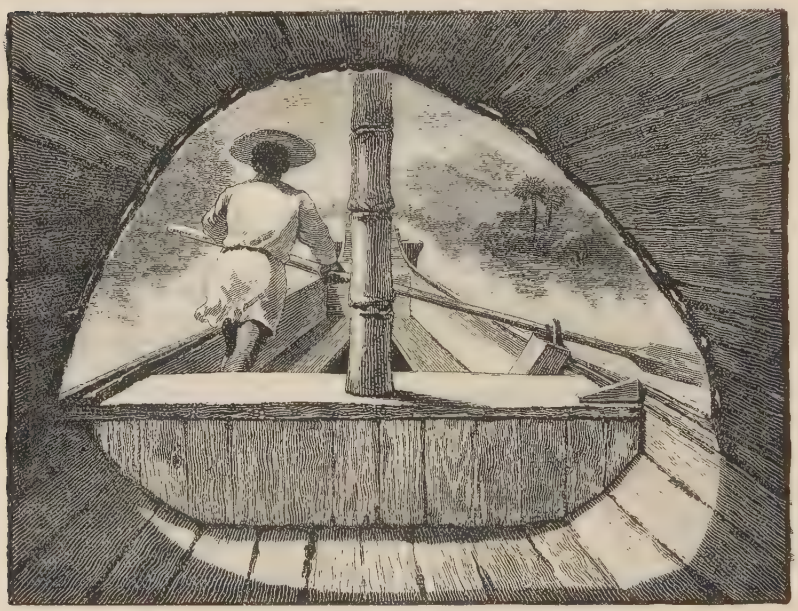
but with their western sides almost perpendicular. They bore a singular resemblance to lines of waves breaking on a lee shore. Behind, the dark blue masses of the Mount Sylvia range, 12,000 feet in height, were visible in the distance, and appeared everywhere to be clothed in thick vegetation. Our path led us down through a little valley deep in azaleas and ferns, and after another mile or two we came upon a small creek, in which we found two boats awaiting us, for our land journey ended here, and the rest of the distance was to be performed by river. For this we were not sorry, as the large flat-bottomed sampans of light draught, which are specially built for passing the shallow rapids with which the river abounds, are very comfortable, and a great improvement on the native chairs which we had just left. We soon got clear of the creek and into the main stream, which is here, without any apparent reason, called the Keelung River. At first shallow, and beset with numerous rapids, it afforded us a certain amount of excitement of a mild kind which passed off as we got farther down stream. A large amount of traffic appears to be carried on here, the river being crowded with boats of all sizes, many of them deeply laden with produce of various kinds. The river wound round the bases of picturesque hills, covered, as usual, with bamboo, but cleared and under cultivation in many places. The soil, it appears, is especially suitable for some kinds of tea, and lately some has been grown which has brought as much as a dollar per pound in the Chinese markets. That usually produced is, however, of a much inferior quality, but a considerable quantity is annually exported, the amount increasing from year to year. In 1881 ninety-six thousand piculs of 133 pounds passed through the Customs.

Birds appeared to be numerous in the jungle by the river side, the black Drongo-shrike (*Chaptia brauniana*) especially so, while the clear note of a Barbet (*Megalæma nuchalis*) was audible in all directions. Both these birds are peculiar to Formosa. They have no representatives on the mainland of China, and their closest allies are to be found in North India and Sumatra. A closer study of the Formosan avifauna shows that this tendency to Indian and Malayan, rather than to Chinese forms, is most striking. The island boasts of no less than forty-three species peculiar to it—an enormous number when we consider the fact that the Chinese coast is barely sixty miles distant—and, of these, twenty are representatives of regions other than the adjacent mainland. The same tendency is noticeable, perhaps to an even greater degree, among the mammals.

The above facts, our knowledge of which is almost entirely due to the late Mr. Swinhoe, teach us firstly that, as Mr. Wallace has shown,[1] Formosa should be classed among the recent continental islands, and also that, at the time of its connection with the mainland the ancestors

[1] "Island Life," A. R. Wallace, p. 371.

of the Formosan, Indian, and Malayan forms were equally dispersed throughout the intervening and at that time undivided continent. After the separation of Formosa and the Malayan islands the altered geological and climatological conditions were such as to cause the disappearance of many forms of animal life except in localities where the required conditions, such as dense forests or high mountain ranges, still remained. The immense number of peculiar species, however, tend to show that Formosa must have become detached from the mainland at some



ON THE KEELUNG RIVER.

tolerably remote period, for we know, from a consideration of our own, as well as of other islands, that the process of formation of a species is one of a by no means rapid character.

We paddled lazily down stream, glad to be protected from the sun by the large arched bamboo awning of the boat, and landed in the afternoon at Chui-teng-ka, a large Chinese town built along the river side, and surrounded by trees and quaintly-shaped low hills, which gave it a decidedly picturesque appearance. Here we found a rather interesting temple; the gateway of which was formed by two large monolithic stone pillars fifteen feet in height, and admirably carved. On the right hand was represented a dragon in very high relief, ascending the pillar

with a round fruit or ball in his mouth, while, on the other side, the animal was descending, with the same object in his claw. Both execution and design were exceedingly good, and must have cost a considerable amount of labour, fully two-thirds of the stone having been cut away in the carving. The town was tolerably clean, or at any rate appeared so after Keelung, which Mr. Taintor[1] has stigmatised as "the filthiest town in the universe," and we wandered about it attended by a small crowd to whom European manners and customs were doubtless a novelty. However well one may know China, there is always abundant matter for interest in the thousand and one objects and incidents of daily life that are to be met with in its great towns. Here is a stall surrounded by little children, who are hardly tall enough to place their money upon it. Yet they are not buying, but gambling for the sweet-stuff that is to be had from the blear-eyed old rascal who attends it. That small boy who has just lost, and thereby escaped the almost certain pains and penalties that the ingestion of the horrible-looking concoction on which he had set his heart would have caused him, goes away muttering words of which I am sure that his papa ought to be informed. He is young yet. In a year or two, should we remain in Chui-teng-ka, —which may Heaven forbid,—we should find him gambling still, but with a face as well-bred and impassive as that of the oldest hand round the board of green cloth at Monte Carlo. Farther on we come upon a hat shop, where the enormously broad, conical head-coverings that they affect in Formosa are being made. How deftly the half-naked, greasy operator plaits the leaves of which they are constructed! They are truly Malayan, these hats; of a genus that is found from Malacca eastwards to Ceram, through sweltering Borneo and Celebes, and the smiling Moluccas. Time and locality, just as in the case of the animal kingdom, have altered them somewhat in shape and material—have differentiated them into a new species, as a naturalist would put it, but the article itself is just as certainly of Malay origin as are many of the so-called aboriginal tribes of the island.

Below the town the river widens. Rice-fields appear, and the scenery becomes tamer, though the graceful tree-ferns and arrowy betel-palms redeem it from absolute dulness. Smooth, stolid Chinamen sat fishing by the river side, some wielding a rod of bamboo, some guarding a square frame net much like that used in England for catching sprats and other small fish. While passing one of these, the phlegmatic owner became suddenly galvanised into what, in a Celestial, might almost be termed a state of excitement. He had caught a fish; but it was no sprat. Whether he ever landed it or not I cannot say, but its splashing was distinctly audible full half a mile away, and, if success attended his

[1] "Journal of the North China Branch of the Royal Asiatic Society." New series. No. IX. "The Aborigines of Northern Formosa," by E. C. Taintor, M.A., F.R.G.S.

efforts, the fisherman must have provided himself and his family with dinner for a good week or more. A mile or two more brought us to the junction with the already united To-ka-ham and San-quai rivers, two large streams which convey all the produce of the interior to Tamsui. Some five miles up stream is the large town of Bang-ka, a place of considerable trade, where two or three representatives of English firms reside. In the neighbourhood, rice, sugar, indigo, and tea are grown,

OUR SKIPPER.

and camphor is obtained from those districts where the virgin forest has not as yet given place to cultivation. The export of the last-named article has of late years been decreasing, possibly owing to the amount of risk which attends its acquisition. The savages are ever on the alert near the edge of the jungle. A Chinaman's head is to them a sort of patent of nobility, for without one they are excluded from the council of their tribe. Poor Johnny collects his camphor in fear and trembling, and never knows but that the setting sun may find his pigtail dangling at the knife-sheath of an exultant savage, who is busying himself at the fire hard by in the cooking and proper preparation of his cranium.

Tamsui is an uninteresting port, in spite of the spur of the high northern range of Formosa which rises above it to the height of a couple of thousand feet or more. We were relieved to find that the *Marchesa* was safely at anchor in the harbour, for we had been not a little anxious as to the possibility of her entrance. The bar is a very shallow one, having only eight feet of water at low tide. At high water, however, a further rise of a little over seven feet had just enabled her to cross it, though she could not have had more than three or four inches to spare beneath her keel. The great draught of the *Marchesa* was, in the following year, a constant source of anxiety to us in the navigation of the little known waters of New Guinea and the Malay Archipelago, for which a vessel of the type of an ordinary coasting steamer would have been far better suited.

The old Spanish fort, built nearly three centuries ago, is a conspicuous object, perched half-way up a hill on the eastern side of the harbour. It is now turned into our Consul's office. The red brick walls are of prodigious thickness, and, entrenched behind them, one could defy the grilling heat to better purpose than, in days gone by, the Hollanders had resisted the attacks of that fine old freebooter Koksinga, the Chinese pirate, who eventually swept them off the island. Pleasant enough it was to rest here, lazily enjoying a cheroot, and to hear of old friends of undergraduate days, from whom a wanderer's life had separated us for many years; pleasanter still to think that there was a chance of meeting them again before long in China. But our time was limited, and a strong sense of duty being implanted in some of us, we were duly escorted to the sights of Tamsui. The most interesting was the consular prison. The two rooms, of the same date as the old fort, looked charmingly cool and quiet, and one wondered at their being unoccupied. When one learnt further that the *far niente* was the only occupation, and that tobacco was not forbidden, one felt indeed that the morality of the place must be something superhuman. It was a pity to spoil the thought by a further reflection that there were barely twenty Europeans from whom to select a tenant.

We had enjoyed our visit to Formosa even more than we had expected, and our regret at our departure was not lessened at having to leave behind us one of our crew, who had been seriously ill for some time. It must, doubtless, have seemed hard for him to be left practically alone in such a far-off land. But we had no alternative, as the voyage might very probably have proved fatal to him. Happily, the result was a favourable one, for, some months afterwards, on our return from Kamschatka, we heard of his recovery and safe arrival in England.

In these latter days of bad trade and land-grabbing, the eyes of Europe have been turned with ever-increasing interest to the far East.

Russia has acquired Saghalien and its coal-fields. Japan, anxious for the well-being of the Liu-kiu Islands, has invited the King to Tokio, and replaced him by a Governor of their own. The English, regardless of malaria and a poor soil, have established themselves in northern Borneo. But it is in Formosa, "the eye of the Empire of China," that the interest has of late been centred, and there are few of us who did not watch with curiosity for the *dénoûment* of the Franco-Chinese comedy, where the one country, at peace with the other, was nevertheless bombarding its towns and blockading its ports. For the time the danger seems to have passed, as it did in 1874, when the Japanese invaded the island. But how long the unoccupied portion of Formosa will remain so is another question, and, bearing in mind the great resources and important position of the island, its leading characteristics are worthy of a moment's consideration.

The island of Formosa, one-third only of which lies within the tropic, is some two hundred and ten miles in length, and about seventy in breadth. It is separated from the mainland of China by the Formosa Strait, which is barely seventy miles in width opposite Foochow, but nearly two hundred at the southern entrance. This channel is, however, somewhat narrowed by the Pescadores Islands, a group lying about twenty miles westward of Formosa, and possessed of good harbours. The soundings in this channel show the island to be connected with the mainland by a submarine bank submerged to a depth of from twenty to forty fathoms only. The eastern face of the island, however, abuts immediately upon the deep sea, and soundings of a thousand fathoms or more are found within a very short distance of its shores. It thus formed the eastern limit of the vast continent with which, at no very remote geological period, the islands of Borneo and Sumatra were also united.

Apart from the fertility of its soil, and its supposed richness in minerals, the geographical position of Formosa is such as to render it a possession of extreme importance with regard to Eastern trade. Swatow, Amoy, and Foochow lie actually within the Formosa Channel, while every vessel bound to and from the northern Chinese ports and Japan is obliged to pass through it. The total foreign trade of the latter country is valued at over twelve million pounds sterling, and of this Great Britain absorbs more than two-thirds. The foreign trade of China is, of course, considerably greater. In 1881 it amounted to over forty million pounds, of which nearly thirty-two million was credited to England and her colonies. The occupation of Formosa by a nation possessing a fleet of any strength, would therefore prove a most serious affair for England in the event of war. The island has often been described as without harbours of any value, but this is hardly correct. It is true that Tamsui and Keelung are the best; that

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they are both exposed to the violence of the north-east monsoon; and that the former is not available for vessels of a greater draught than sixteen feet. But the extensive harbour of Ponghou in the Pescadores Islands is complemental to them, and affords excellent shelter from northerly gales, while the smaller anchorage of Makung within it is perfectly safe during typhoons. In both monsoons there are thus good ports available, while from December to March good anchorage can be obtained off Tai-wan and other places on the south-west coast.

The orographical characteristics of Formosa are very peculiar. The gigantic precipices of the east coast have already been alluded to. The entire eastern half of the island is composed of lofty mountains covered with dense jungle, which, toward the centre of the island, rise to a height of nearly thirteen thousand feet. At its northern and southern parts the country is also mountainous. The western side, however, is extraordinarily low and flat, and runs back as a vast plain almost to the foot of the central range, which here rises with extreme abruptness. The results of these peculiarities in the physical features of the country are most marked. From various causes the rainfall of the central and northern parts of the island is excessively heavy. The gradients are so steep that erosion takes place to a very great extent, while the soil is, for the most part, of such a nature as to disintegrate with great rapidity. We find, therefore, that the amount of detritus brought down is enormous, that the mouths of the rivers are blocked with sand-banks, and that the land is gaining on the sea to a considerable extent. The old Dutch fort Zealandia, built on an island in 1630, is now two-thirds of a mile from the sea, and the city of Tai-wan, under whose walls vessels could at that time lie at anchor, is now only accessible to cargo boats by means of a narrow creek. Nature is striving once more to unite the island with the mainland from which it has so long been separated.

Although there are no active volcanoes in Formosa, there are constant evidences of volcanic agency throughout the island, which show that it forms a link in the great chain which runs from Kamschatka southward to the Philippines. Hot springs and solfataras are found in the neighbourhood of Tamsui, and, in spite of the working of the sulphur being forbidden by the Chinese Government, a large quantity is produced and exported to Hongkong. Mineral oil has also been discovered, but, as yet, it has not developed into an article of export. The Chinese are not a mining people, and the three or four million of them that people Formosa are content to gain their living, for the most part, as cultivators of the varied vegetable products which the rich soil so readily affords them. They divide the island pretty equally with the aboriginal savage tribes, but a mere glance at the physical features of the country, as exemplified by the map, is sufficient

to show broadly the distribution of the two races. The aborigines, or rather the natives sprung from Malayan stock (for there is a doubt as to whether they are not the successors of a race now extinct), are now confined to the rugged mountain country of the eastern and southern districts, while the Chinese are limited to the plains of the western part, and to a small extent of country at the north of the island. Year by year the latter steadily advance in their search for camphor, but the advance is slow, and the ground only gained at the cost of many a Chinaman's head. The trees from which this drug is obtained are of considerable size, and are only found in the primeval forests. They are felled for the timber, which fetches high prices in Hongkong and other Chinese ports, and is chiefly used in the construction of boxes and chests of drawers. The smaller wood is broken up and heated in iron retorts, and the camphor, on subliming, is collected and packed in barrels, and sent down to the northern seaports for exportation. In spite of the almost inexhaustible supply that must still exist in the dense forests of those parts of the island inhabited by the savage tribes, it is noteworthy that the export has of late years steadily diminished, and in 1881, 9316 piculs only passed the Customs at Tamsui. But there are other far more important articles of export than either camphor or tea. Enormous quantities of rice are grown in the plain country, and sugar is produced in abundance in the same district. Jute, indigo, tobacco, grasscloth fibre, rattans, and rice paper are other products in which a considerable trade is carried on. The last named, with which we are all familiar as the substance used by the Chinese for painting on, is the pith of *Aralia papyrifera*, a plant peculiar to Formosa, growing wild in many parts of the island. It is pared concentrically by hand, and the thin sheets produced are moistened and joined at the edges, and finally pressed and dried, when it is ready for the Chinese artist to depict upon it the discords in red and green he so generally affects.

Formosa, without being in the strictest sense of the word a tropical island, is nevertheless extremely hot, and, although during the winter months wheat is grown in considerable quantities in the Tamsui district, and is of better quality than that of the mainland, the average temperature is high as compared with that of the same latitude on the coast of China. The rainfall in the northern and eastern parts of the island is very heavy during the prevalence of the North-east monsoon. Thus from November to the end of April, over one hundred inches fall at Tamsui. This is, without doubt, due to the eastern homologue of the Gulf Stream—the Kurosiwo or Japanese current. The monsoon blowing over its heated waters, and coming in contact with the great mountain ranges in the north and centre of the island at once precipitates its surcharge of moisture.[1] Formosa thus acts as a sort of

[1] "China Sea Directory," vol. iii. p. 250.

umbrella for the eastern coasts of China, and the winter and spring are, consequently, a period of almost uninterrupted sunshine in the latter region.

During our visit to Formosa, the "typhoon season" had not fairly set in, and the *Marchesa*, though destined later to come in for the full strength of one of those extremely unpleasant natural phenomena off the coast of Japan, experienced no heavy weather of any kind. Storms are, however, of no unfrequent occurrence between June and November, and the typhoons met with in the neighbourhood of the island are not less severe than those of the Philippines. And, although no such tidal waves and earthquakes as have on more than one occasion devastated Manila have ever been recorded, Formosa is no stranger to either phenomenon, and it is probable that, taking these and other climatic eccentricities into consideration, the visitor, unless he be a naturalist, will subscribe to the opinion once expressed before the Geographical Society by a distinguished traveller, that Formosa, like Ireland, is a very good country to live out of.

CHAPTER II.

THE LIU-KIU ISLANDS.

We left Tamsui on the evening of June 26th, having crossed the bar without accident. Hauling clear of the northern end of Formosa we sighted Pinnacle Island, a lonely rock peopled with myriads of sea-fowl, and shaped our course east for the Liu-kiu Archipelago. We were without a general chart of these seas, and were accordingly compelled to trust to the information afforded by the Sailing Directories. The result was hardly satisfactory, and, had daylight not befriended us, might indeed have proved somewhat more than unpleasant. The Hoa-pin-su group of islands lay directly in our course, and on sighting them early in the morning we were surprised to find them much farther off than we had expected. We at first attributed this to a strong head current, but, on taking an observation, we discovered that the islands were in reality twenty-three miles farther to the east than the position assigned to them. We then altered course to pass well to the north of Raleigh Rock, a solitary island some hours' steaming to the eastward, discovered by a ship of that name in 1837. It was with considerable astonishment, therefore, that we sighted it well on the port bow. Another observation revealed the fact that, like Hoa-pin-su, its position had been erroneously given in the "Directory," where it is stated to be twenty miles farther to the south than it actually is. We discovered afterwards that these islands are correctly marked on the chart, but, in spite of all the virtues of "the lead and a good look-out," we were not sorry to turn in that night with the happy consciousness of a clear sea and no dangers.

It was with no little pleasure that we looked forward to our visit to the Liu-kiu Islands. Captain Basil Hall's well-known account of them in the "Voyage of the *Alceste* and *Lyra*" is so prepossessing, that every one who has read it must long to make acquaintance with a people so unsophisticated: a quiet and peace-loving race to whom

traders'-rum, guns, and other implements of civilisation are practically unknown, and whose natural tendencies seem to be towards virtue rather than vice. In these latter days of omniscience, when no land of Arcady, no *pays de Cokayne*, lure the traveller to undertake fresh hardships in their search, it is rare indeed to find any country at all approaching one's notions of a terrestrial paradise, but Liu-kiu and its inhabitants, as depicted by Captain Hall in 1816, appear to attain to within an interesting distance of one's ideal, and we were curious to know how far the changes of three-quarters of a century had served to destroy the many charms of the self-styled "nation that observes propriety." Happily we were not doomed to be disenchanted.

The Liu-kiu group lie some two hundred and fifty miles to the east-north-east of Formosa, which, in defiance of every political and geographical reason, was, in the early days of Chinese commerce, called Little Liu-kiu. Okinawa-sima, which is the largest island of the Archipelago, from its greater commerce and population, was known as Great Liu-kiu—a name it has retained to the present day. The islands extend north and south for about three degrees of latitude, and lie just north of the tropic, a position that permits the growth of the crops both of temperate and sub-tropical regions. They are partially volcanic, and thus form one of the links in the great plutonic chain that skirts the eastern shores of Asia, and, passing southward through the Philippines and Moluccas, joins the southern and yet more remarkable belt which traverses Sumatra, Java, and the islands to the eastward. Although between three and four hundred miles distant from the mainland, they are separated from it by a somewhat shallow sea. Immediately to the east, however, as is the case in Formosa, soundings of great depth have been obtained, and though at present our knowledge of the fauna and geology of the country is meagre, there is but little doubt that at one time connection must have existed with the mainland of Asia. Lying so far from the beaten track, it is not surprising that the islands have remained so imperfectly known, and the disinclination of the inhabitants to permit of the exploration of their country has proved a still further barrier to our knowledge of them. The first detailed account of the group in later times is due to Captain Basil Hall; H.M.S. *Alceste* and *Lyra* having remained at Great Liu-kiu for a period of about five weeks in the autumn of 1816. Dr. Macleod of the *Alceste* also described their visit in another volume. In 1849, Mr. Halloran paid a short visit to Napha-kiang, but was apparently not permitted to go beyond the confines of the town,[1] and in the following year the Bishop of Victoria spent a week on Okinawa-sima, and visited Shiuri, the capital. It is,

1 A. L. Halloran. "Eight Months' Journal kept during Visits to Loochoo, Japan, and Pootoo." London, Longman and Co., 1856.

however, to Commodore Perry, in his "Narrative of the Expedition of the American Squadron to the China Seas," that we owe the most complete and detailed account of the Archipelago. His experience extended over a period of some months, and ended in July, 1854, in a treaty or compact between the two countries, in which the Liu-kiuans agreed to show every courtesy to ships sailing under the American flag. Since that time little or nothing appears to have been written about the islands, with the exception of two papers published in the "Transactions of the Asiatic Society of Japan."

Early on the morning of June 28th we sighted Komisang, the westernmost island of the Liu-kius, and left it to the north, our destination being Napha-kiang, the chief seaport town on Okinawa-sima. This island is the only one of real importance in the Archipelago, the others being, for the most part, of very small size. It is sixty miles in length, and from five to ten in breadth, and from its irregular shape and fancied resemblance to a dragon the name of Riu-kiu, or Liu-kiu, is, probably erroneously, said to be derived. Few places, I should imagine, have exercised the orthographist to a like extent. By quaint old Purchas, who, by the way, speaks of the inhabitants as being "a well-shapen people, white, politicke, and of good reason," the name of the island is given as Lequio. The Spanish traveller Gualle[1] talks of them as the Lequeos, and while to the Japanese, with whom the labials *l* and *r* are interchangeable, they are known as the Riu-kiu Islands, they have been variously written of and described by the English as the Liew-kiews and Lew-chews, and finally, still more phonetically, as the Loochoos. Kaempfer calls them the Liquejo Islands, but if a mean of these varied spellings be taken, Liu-kiu will nearly approach the result, and is more correct if, as may justly be concluded, the name be of Chinese origin.

During the morning we were passing the numerous islands of the Kerama group, which, though small, appear to be highly cultivated, terrace rising above terrace with the utmost regularity. The islanders are born agriculturists, and are less dependent on "the harvest of the sea" than might, from their apparent opportunities, be supposed. Napha-kiang is situated on the western coast of Great Liu-kiu, close to its southern extremity, and the harbour, owing to its being surrounded to a great extent with reefs, is a tolerably safe, though somewhat restricted one. The appearance of the town as seen on approaching is decidedly picturesque. It is Japanese in character, yet at the same time possessed of such marked peculiarities that the traveller feels at once that he is in a new country. To the right a long, low, battlemented wall guards the entrance to a little river, which affords shelter to the half-dozen or so of Japanese junks that are busily engaged in

[1] "Hakluyt," vol. iii.

discharging cargo. The town, half buried in trees, with the red roofs of its houses only visible here and there, seems to have wedged itself between the dark green waters of the harbour and the base of the low hills behind. Northward it is flanked by a square headland of limestone, which, with its flat top and perpendicular cliffs, rather resembles some gigantic box than the freak of Nature that it is. Around it the graves of past generations lie thickly clustered, dotting the hillsides in every direction. Clumps of bamboos and bananas surround the isolated cottages scattered over the slopes, and field after field of mingled green and gold stretch up as far as the eye can reach to the craggy, pine-crowned heights of Shiuri, the capital of the island.

We dropped anchor at 2 P.M. Few signs of life were visible in the town. A group of long-robed natives were promenading the cliffs, and stopped to regard us with evident curiosity. Before long it was evident, however, that our arrival had become more generally known, and crowds of natives flocked to the cliffs, manifesting no little excitement. A European ship was plainly no everyday sight to them. We rowed ashore, and landed on an excellently-built pier in the inner harbour. The crowd had been increasing every moment, but though we had been watching it from the ship, we were hardly prepared for the dense sea of human faces that confronted us as we stepped from the boat. There was no disorder or horseplay, such as would have been the case in England, and those in our vicinity bowed to us as well as their position would allow them; but it was with the utmost difficulty that we were able to make our way through the dense mass of humanity surrounding us. Every one was bent upon getting the best view possible, and it was more than ludicrous to watch the desperate efforts of those at the edge of the jetty to retain their position on the few inches of *terra firma* which were slowly but surely diminishing beneath their feet. Not a single woman was visible, but many children, perched on their fathers' shoulders, regarded us with solemn infantine wonder, not unmixed with quiet approval of the sight provided for them. Some years of travel in uncivilised lands will do much to accustom the wanderer to being stared at, but I must confess that I had never before had the consciousness of the peculiarities of European dress and general appearance so forcibly impressed upon me. As we struggled slowly on, our immediate neighbours anxiously endeavoured to make room for us, evidently considering that contact implied a breach of good manners on their part. Our progress, however, was not rapid, and just as we were beginning to wonder whether we were ever destined to reach the town, the crowd parted in front, and a Japanese official appeared. We were the bearers of letters of introduction from Nagaoka, formerly Japanese Minister to the United States and to the Court of Holland, whose cousin was at the time Governor of the Liu-kius.

These we entrusted to our newly-arrived friend, but, being as guiltless of the Japanese language as he was of our own, we were obliged to pursue our way in silence. We were led through the town to the police station, or what apparently corresponded to it, but owing to the numbers of people who still accompanied us, we had but little opportunity of observing our surroundings. The house, situated in a little compound, the entrance to which was overhung by a magnificent *Ficus* with a quaintly gnarled and twisted trunk, was built in Japanese fashion, entirely of wood. The rooms were open at the sides, the sliding, paper-covered panels having been drawn back, but the beautifully clean mats that would in Japan have covered the floors were replaced by a red and green carpet that could only have owed its origin to English or German taste. A table and some chairs still further de-orientalised the room, but, alas! the one thing foreign that we most needed—a European language of some kind—was apparently not forthcoming. We accordingly drank the Japanese tea provided for us, and smoked thimblefuls of tobacco out of the tiny pipes used alike in Liu-kiu and Japan, until something should occur.

Before long we were considerably astonished at the appearance on the scene of an individual whom, at first sight, we took to be an English missionary. Dressed in a long coat of broadcloth reaching nearly to his heels, and with his nether man encased in a pair of buckskin breeches, he presented a somewhat extraordinary appearance, which was further heightened by a haggard face and a pair of deep-set, hawk-like eyes. He informed us that he was an American, and that he had resided at Napha for some months in company with another "gentleman from the Western States." At a later period of our visit the Liu-kiu authorities asked us if we could afford them any information as to the object of their two visitors, at the same time suggesting that it might possibly be very pleasant if we could offer them a passage to Japan in the *Marchesa.* In our reply we regretted that we were unable to afford them assistance in either particular. Only three Europeans have, I believe, previously resided on the islands, and in each case the most rigorous surveillance was exercised over all their movements. A special guard invariably attended them, and, though subjected to no insults or annoyances, little or no liberty was allowed them. A similar system appeared to have been followed in the case of our American friends, and, although they had been on the island for so long, they had never been permitted to go outside the town. The Europeans one meets with in the holes and corners of the world are, in ninety-nine cases out of a hundred, either scientific travellers or missionaries. If they fall under neither of these categories one does not seek to inquire further, and we were quite content in the case of our two acquaintances to limit ourselves to the acquisition of such information on the subject

A STREET IN NAPHA-KIANG.

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of Liu-kiu and the Liu-kiuans as they were able to afford us. They did not appear, however, to have acquired much knowledge of the language, and we should have been reduced to conversation by signs had it not been for the arrival of an amusing little Japanese doctor, who was possessed of a vocabulary of some thirty or forty English words, and nearly as many of French. From him we learnt that the Governor of the Liu-kius had just gone to Japan, but that his place was filled by the Vice-Governor, who had received our letter and would see us in the course of an hour. We accordingly resolved to explore the town meanwhile, and set off in company with our little Japanese friend, whose presence served to free us from the enormous crowds that had so interfered with our movements on our first arrival.

The streets have a most peculiar appearance, owing to the houses being built in little compounds, and separated from the street and one another by massive walls from eight to fourteen feet in height. These walls are of great thickness, and slope outwards at the base in the same manner as those of the old feudal castles of Japan. They are composed of large blocks of coralline limestone, and are most beautifully built. For the most part they appear to be of considerable antiquity, and we did not come across any which led us to suppose that the islanders continue to build them at the present day. They were no doubt originally constructed for purposes of defence, most probably on account of the difficulty of defending the town as a whole; and, in the days of the infancy of artillery, the enemy would have gained but little had they entered the city, while they would in every direction have been exposed to a cross fire which must speedily have decimated them. Every man's house is literally his castle, the entrance to which is through a narrow and easily-defended door in the high wall. Within, however, the scene changes, and in a second of time one is transported to another country. The houses, built entirely of wood, and dark brown with age, display their interior with the inviting hospitality so characteristic of Japan. The inmates, ignorant of the chairs and tables of Western civilisation, recline peacefully on the thick oblong mats neatly plaited of rice straw, and play at shattering their nerves with the contents of lilliputian tea-cups and still more lilliputian pipes. Outside is the familiar garden that all of us, whether from books or from actual experience, know so well. The pebbly paths leading to miniature bridges over embryonic lakes, the little stone lanterns, the quaintly-clipped trees—all are Japanese; and, as one makes a rapid passage back to the Liu-kiu Islands through the gate, not a shadow of doubt remains in one's mind as to the justice, ethnographically speaking, of their having fallen under the dominion of the Mikado.

We sauntered slowly about the town under as hot a sun as I have experienced either within or beyond the tropics, and in the course of

our rambles came suddenly upon the market-place. We had seen but few women previously, but here we had abundant opportunities of satisfying our curiosity, for the whole business of stall-keeping devolved upon the fair sex. Our appearance at first created some alarm, and many deserted their posts and took to flight; but after a time they became reassured, and we were able to walk about and inspect their wares without creating a panic. The scene was a curious and interesting one, but it lacked the busy life and movement that in other parts of the world are the chief features of a market-place. Beneath the shade of some scores of umbrellas sat, or rather squatted, a like number of women, each with an oblong box about the size of a small portmanteau in front of her. The contents we found, to our disappointment, to be of a very uninteresting character. Common crockery, apparently imitated from Japanese designs, and not of particularly good shape, was abundant, the chief articles being cups and small tea-pots. There were also pipes and pipe-cases, cotton, hair-pins, coarse cloth, cheap fans, and common lacquer trays and plates; but these seemed to comprise the collective stock-in-trade of the whole market, and with the exception of the hair-pins, to which I shall have to allude presently, there was nothing whatever to tempt us. Neither was there any temptation to essay a lesson in Liu-kiuan from the fair stall-keepers, who were for the most part of a certain age, and singularly unattractive; so, on the arrival of a message from the Vice-Governor, we at once proceeded to his house.

We were received with some ceremony, and accommodated with chairs. Tea and pipes were then handed, the former of excellent quality. Japanese tea is at first much despised by Europeans, whose palate has been spoilt by the strong black teas of China, but after a short time the peculiarly delicate flavour of the former comes to be much appreciated, and the traveller would not willingly exchange it for any other beverage he could name. It is drunk, like coffee in Turkey, at any hour of the day or night, and nearly as much attention is bestowed on its appearance, bouquet, and "feeling" as a glass of '47 port receives at the hands of a connoisseur, or a tumbler of water when tasted by a critical Greek. Its price varies to an extent unknown in Europe, and while it is possible for the poorer classes to obtain it for as little as twopence per pound, the Japanese of high rank will set before his guests a carefully-selected leaf which has perhaps cost him from eighteen to twenty shillings, or even more.

Before calling on the Vice-Governor, we had informed Uyeno, the Japanese doctor, that we particularly wished to visit Shiuri, the capital; at the same time explaining our position, and stating that the tenor of our letters of introduction was to the effect that every assistance should be afforded us in the event of our desiring to explore the island. This intelligence was apparently by no means particularly agreeable to him,

and he at once suggested that we should visit Oonting—a port some forty miles to the northward—instead. We pointed out that the capital being only a few miles off, it appeared to us to be more easily accessible from Napha than Oonting. This was received in silence for some time, but at length he abruptly exclaimed, "I say, I hope you go to Oonting to-morrow." We then told him that we did not contemplate doing anything of the kind, that we had come to Napha with the express purpose of visiting Shiuri, and that we could not believe that the authorities would act in opposition to the expressed wishes of the Minister to the United States. With these remarks the conversation concluded, and the discussion was deferred until our visit to the Vice-Governor. Here we exchanged the usual civilities, and having drunk our tea, we again brought the subject on the *tapis*. We were then informed that it was against the law for any foreigners to visit the capital; but, on our representing the fact that Englishmen had already done so, and delicately hinting that we had every intention of following their example, permission was at length rather reluctantly accorded, and we took our departure with the happy consciousness of having gained a victory which at one time had seemed more than doubtful.

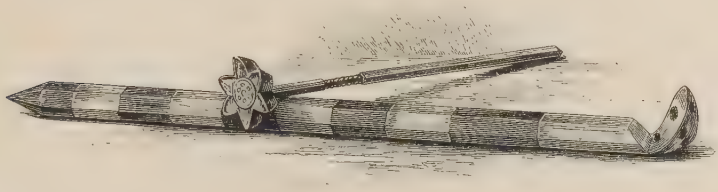
The same enormous crowd attended us on our way to the jetty as had greeted us on our arrival; good-humoured and quiet as before, but bent on seeing the most of us. It was with no little relief that we rejoined our boat and found ourselves free at last, and with the prospect of unimpeded movement for the next twelve hours at least. We had had abundant opportunities of observing the physical characteristics of the Liu-kiuans. They are a short race, probably even shorter than the Japanese, but much better proportioned, being without the long bodies and short legs of the latter people, and having as a rule extremely well-developed chests. The colour of the skin varies, of course, with the social position of the individual. Those who work in the fields, clad only in a waist-cloth, are nearly as dark as a Malay, but the upper classes are much fairer, and are at the same time devoid of any of the yellow tint of the Chinaman. To the latter race indeed they cannot be said to bear any resemblance, and though the type is much closer to the Japanese, it is nevertheless very distinct. On first arrival in any country it is extremely difficult to distinguish tribal peculiarities. Thus, in South Africa, the "new chum" will be unable to tell a Basuto from a Zulu, or the latter from a Gaeka, though in the course of a few months he can do so at a glance. But here, in Liu-kiu, the Japanese and natives were easily recognised by us from the first, and must therefore be possessed of very considerable differences. The Liu-kiuan has the face less flattened, the eyes are more deeply set, and the nose more prominent at its origin. The forehead is high, and the cheek-bones somewhat less marked than in the Japanese; the eyebrows are arched

and thick, and the eyelashes long. The expression is gentle and pleasing, though somewhat sad, and is apparently a true index of their character. The beard, when permitted to grow, is long and black, though not what would be termed thick by a European. In the old men it is often snow-white and of considerable length. The hair upon the cheeks is scanty, and is generally kept shaved, and the moustache is also thin. A

LIU-KIUAN OF NAPHA-KIANG.

peculiar appearance is produced in some cases by plaiting the beard, and fixing the end into a sharp point by means of some adhesive. The mode of dressing the hair is peculiar, and is the same for every individual, male and female, rich and poor, throughout the country; although the custom is not always followed among the lowest classes of field labourers and others. A small space is shaved on the crown of the head, and the rest of the hair, which is allowed to grow long, is gathered together and twisted or plaited into a knot over the bald spot, which, however, it only partially conceals. It is apparently dressed with some cosmetic after the custom of the Japanese, and is then transfixed by two hair-pins—the *kamasashi* and *usisashi*. The former is about four

inches long, with a depression in the centre of the pin to prevent its falling out, and with the head expanded into the representation of a lotus flower. The other is two or three inches longer, and in shape exactly resembles a narrow spoon. At ten years of age the boys are permitted to assume the *usisashi*, but the *kamasashi* is not worn until the age of puberty. The metal of which they are composed varies with the rank of the wearer. The lower classes have them of brass or pewter, and the literati and higher officials either of silver or gold, according to



LIU-KIU HAIR-PINS (*Kamasashi* and woman's *Usisashi*).

their position. No one, we were informed, would be permitted to wear the pin of a rank to which he did not belong. The women dress their hair much in the same way, but the top knot is rather larger, and is placed slightly to the right side. They use wooden or horn pins, one of which resembles the *usisashi*, but is much larger. It is hexagonal, and is in many cases constructed of alternate pieces of black and transparent horn, neatly joined by glue. The bowl at the end is as large as that of a salt-spoon, and must, one would imagine, be intended for some special use, though what it was I was unable to discover.

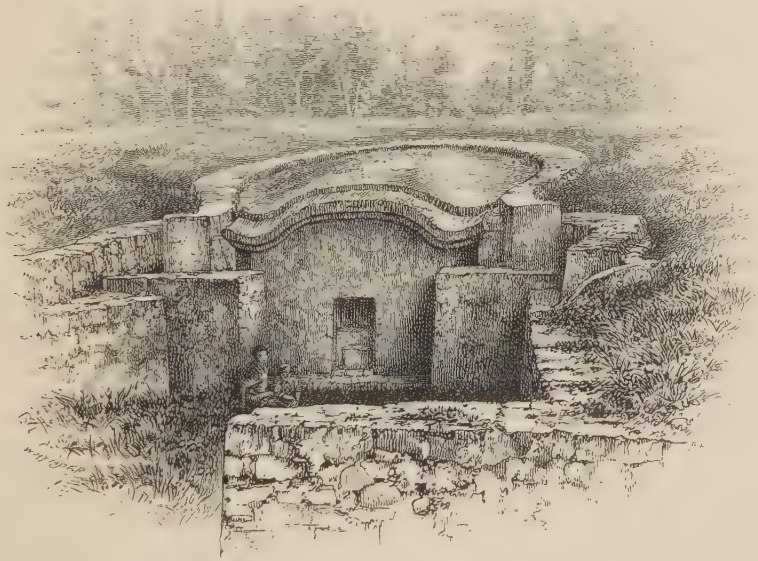
In most countries in which tattooing is practised the men are generally far more decorated than the women, but in the Liu-kius this is not the case. The men have seldom any ornament of the kind, but the women have the hands tattooed in the manner represented in the following engraving. The pattern, which is in blue, and probably produced by Indian ink, is apparently similar, or very nearly so, in all cases; but the extent of it appears to vary according to the age of the individual. Thus the children have only the fingers ornamented, and the whole design as here represented is not completed until marriage. On the wrist, or just above it, is a Maltese cross—a design which would seem to have been in vogue for a considerable period, as it is given in an illustration in Beechey's "Narrative of a Voyage to the Pacific" in 1827.

Our time in the islands being limited, we made the most of it by seeing as much as we could of the town and immediate surroundings of Napha-kiang, a dense crowd being invariably in close attendance

during our peregrinations. One of the most striking features in the environs of the town is the number of tombs that everywhere meet the eye. They are usually built in the sides of the hills, and are of a horse-shoe shape, not unlike those of the Chinese. The hills, indeed, seemed set apart as cemeteries, and, in spite of the high cultivation around, were left untouched by the hand of the husbandman. The ground is dug away perpendicularly on the slope in the shape of a semicircle, and in the vertical face thus formed a small vault is constructed. The perpendicular sides are built up with masonry, and a low wall erected in front. This is the main design, but the taste or wealth of the individual constructing them will in many cases lead to considerable elaboration. We had not the good fortune to see the ceremony of burial during our visit, but we were told that the corpse was placed within the vault and left for a period of seven years. The bones are then collected and placed in urns. In the event of an individual or family being unable to afford the construction of one of these somewhat costly edifices, it appears that they join with others and share the expense. The poorest classes in Napha are interred in vaults cut in the sea cliffs. After burial it is the custom, as in China, to place cups of rice-spirit and various dishes by the side of the deceased. These are afterwards removed and eaten. A large collection of rock-hewn tombs were discovered in the middle of the island during the visit of Commodore Perry's expedition, evidently of great antiquity, and similar to those found in Egypt and Syria; and from their appearance and certain statements made by the natives, it was supposed that they belonged to a race which had preceded the present inhabitants of the island. The presence of a presumed emblem of Phallic worship in the vicinity was thought to confirm the fact, but these objects are so frequent in Japan that it is scarcely likely to have owed its existence to any other country. It is, however, by no means improbable that a prehistoric race did exist, if we judge from the analogy of other islands

TATTOOED HAND.

in these seas. It is curious that dug-out canoes should be in use at the present day in Liu-kiu, more especially as the materials necessary for their construction cannot be too plentiful. They are in this part of the world almost purely characteristic of a Malayan race, and would be more likely to be the last relics of a bygone people than later introductions to a much further advanced civilisation. Further exploration, however, may perhaps set the matter at rest, for the islands are practically *terræ incognitæ* even at the present day; and with the sole exception of the short excursion made by some members of the



TOMB NEAR NAPHA.

American expedition, the interior has as yet remained totally unvisited by Europeans.

During our rambles in the streets of Napha we several times noticed little stone edifices about four or five feet in height, resembling somewhat the shape of the large stone lanterns so common in Japan. These were full of little rolls of human hair,—the refuse combings from Liu-kiuan toilet tables to all appearances. Our friend the Japanese doctor, whom I asked about them, did not know their use, but referred to a native. We were told that the hair was burnt in them on certain occasions by the priests. In China there are, I believe, small altars of a somewhat similar nature, in which all scraps of paper with writing on them are burnt, lest the name of any deity which may

happen to be inscribed on them should be exposed to the dishonour of being trodden in the dirt. But what was the meaning of the burnt offerings of hair we could not discover.

To the curio-hunter the Liu-kiu Islands are a most unprofitable ground. There are, practically, no shops, except for the sale of ordinary domestic articles and the absolute necessaries of life. The simple tastes of the people and the little intercourse with other countries have not favoured the development of art in any form, and the many beautiful objects of that kind that are found in Japan are, it seems, quite unknown in the islands, in spite of the many points of similarity in other ways existing between the two nations. Articles of common lacquer are made, but apparently for use rather than ornament. The so-called Liu-kiu lacquer—of extreme hardness and of a beautifully deep rich red colour,—sometimes, though rarely, to be picked up in Japan—we were unable to procure; and its production is said to be a lost art. No jewellery is worn, and the dresses, made for the most part of cotton or coarse grass-cloth, have no special interest. The stuffs forming the robes of those of higher rank are no doubt imported either from China or Japan. Almost the only souvenirs that we brought away with us were the peculiar silver hair-pins to which I have already alluded, and a musical instrument much like the *samisen* of the Japanese—a species of banjo with three strings, chiefly remarkable for having the body covered with snake-skin.

LIU-KIU *Samisen.*

The inner harbour of Napha-kiang is as pretty a spot as one could well imagine, though from a seaman's point of view it is of little value, owing to the shallowness of the water. The greater part of it, indeed, is almost dry at low tide; and as we float lazily over the surface of the

clear, still water, the endless beauties of coral-land lie revealed beneath us with the prodigality of form and colouring so characteristic of Nature in warmer climes; beauties to which no naturalist, however enthusiastic, no writer however gifted, has ever yet succeeded in doing justice. Beyond the junk anchorage a large and thickly-wooded island nearly blocks the farther recesses of the estuary, the foliage almost tropically luxuriant in its growth, yet not devoid of a certain quaintness peculiar to Japan,—that quaintness which, after all, is not much exaggerated by the stiff and perspective-disregarding pictures of the country. What is it, I wonder, that has made the dress, the customs, nay, the very character of the Japanese, to assimilate so closely with the scenery of the land in which they live? In no other part of the world does one realise in the same way the fact that Nature can, if she so chooses, be most thoroughly artificial. The Japanese does all in his power to assist her. His leading characteristic is his love of the grotesque, and he places it unreservedly at her service, meeting her half way in producing what, if not by any means always the most beautiful, is certainly the oddest scenery in the whole world. His eye is for ever on the attainment of some little effect. He builds a quaint temple here, and erects a *Torii* in this or that unexpected spot. His notions on landscape gardening are, we know, peculiar, but he will even carry them into his forestry, and leave trees isolated on the sky-line of a hill from æsthetic rather than agricultural motives. Liu-kiu is Japan just as the Liu-kiuans are, to all intents and purposes, Japanese, but it is Japan with its grotesqueness toned down and its stiffness softened by six degrees of latitude. The inner recesses of the harbour which I have just described were, indeed, as much like a scene in the Malay Archipelago as anything else, and the little azure-blue kingfisher[1] that flitted out from time to time ahead of us was by no means out of harmony with it, for the bird is cosmopolitan in its habits, and ranges from Africa to New Guinea, and from Japan to Timor. It is an Eastern representative of our own kingfisher, and differs but little from it in plumage.

Passing the wooded islet at the harbour's entrance on our return, we came upon a curious scene. A party of half a dozen natives had gathered on the bare summit, and, facing towards the west, were occupied in some sort of festal or religious ceremonial. The sun was just setting, but the thick banks of cloud gathered above our heads portended a heavy storm. Bathed in a flood of hard light, a solitary figure stood out against the evening sky, slowly waving his arms and dancing an adieu to day. Behind him sat the others with snake-skin guitars, chanting the weird, yet not unpleasing, discords of some Liu-kiuan

[1] *Alcedo bengalensis*, Gm.

song. Presently the music ceased, and another stepped forward to take the dancer's place. We floated slowly on, half unconsciously under the spell of the mournful music and the strangeness of the scene we were watching, until both had vanished in distance, and the fast-fading light warned us that we had better return. The piece was ended and the curtain had fallen, but among many scenes of travel vividly impressed upon my memory, I can recall few more so than the Liu-kiuan sunset dance in Napha-kiang harbour.

At our interview with the Vice-Governor upon our arrival, we had intimated to him, but in Asiatic exuberance of diction, that we hoped we might have the pleasure of his company at dinner on board the *Marchesa.* The answer, couched no doubt in equally florid verbiage, was to the effect that he had much pleasure in accepting. At the appointed time, accordingly, we sent the gig to convey our guests on board. They were three in number; the other two being our friend Uyeno, the Japanese doctor, and a secretary of the Governor. The conversation at first hung fire, but the champagne being evidently very much approved of, it became more lively as dinner went on, and before long everything was progressing merrily. English being our chief medium of communication, Uyeno acted as interpreter, and commenced every sentence with a fluent "I say." What followed, however, was by no means always so easy of comprehension. Their French, unfortunately, was not even of the "scole of Stratford atte bowe," so we were constrained at times to wander in the thorny paths of sign language, or to pour libation to fill up awkward pauses. Knives and forks were evidently almost unknown to our visitors, but they managed them with really praiseworthy dexterity after closely watching our movements for a time. Among the many dishes that must have been new to them was asparagus, and it evidently puzzled them to guess its origin. Uyeno's first essay at eating it was not very successful. Looking nonchalantly round, he discovered, and doubtless made a mental note of the fact, that this was apparently one of the few things that Englishmen eat with their fingers, and, with the habitual good breeding of his race, endeavoured to follow his host's example. Seizing the vegetable by its head, he was at first somewhat dismayed to find it come off in his fingers, but, nothing daunted, he again returned to the charge, got a firm hold lower down, and commenced operations. There are, doubtless, many things in the cuisine of our country which are more interesting than the butt end of a shoot of tinned asparagus, and he was munching it with a comical air of mingled wonder and resignation, when one of us, whose gravity was least disturbed by the proceeding, took compassion upon him, and mildly suggested that, in general, there was more nutriment to be obtained at the soft end. His advice was at once adopted, but the sudden change of expression to one of complete

satisfaction and approval was so irresistibly comic that we were one and all convulsed with suppressed laughter.

However much accustomed one may be to the odd incidents of travel, there is always something about a dinner with Japanese which is trying in the extreme to the gravity of the most sober of Englishmen. I am not referring to the Anglicised individual with whom the ordinary globe-trotter is brought in contact, whose manners are as irreproachable as his Lincoln and Bennett, but to those whose dress is the *kimono*, and to whom English is an unknown tongue. Both are equally well-bred; if anything, the balance is in favour of the one who, as yet, is not overlaid with the veneer of Western civilisation. But there are customs and customs, and those of Europe are still very different from those of the kingdom of the Mikado, in spite of the advance of the vanguard of Swedish matches and Bass's Pale Ale. The unsophisticated Japanese delivers himself of no trite phrase to express his gratification at the hospitality he has received at your hands. No "many thanks for the charming evening I have had" (an expression which Mr. Max O'Rell informs us is *de rigueur* on all such occasions in English polite society) ever passes his lips. But he considers it incumbent on him physically to express his sense of the excellence of the comestibles placed before him. Is the champagne undeniable?—then let it be imbibed with such suckings and swizzlings as shall manifest his appreciation of the *cru*. Are the *quenelles de volaille à la matador* a success?—his audible guzzlings and smackings of the lips should show that he has recognised the fact. Eating, as well as reading, maketh a full man, and repletion and content are synonymous terms in other languages besides Japanese. "*Estando contento no tiene mas que desear*," says Sancho Panza, and the fact is accordingly announced with the accompaniment of various natural phenomena to which it is unnecessary to allude, and which are, to say the least of it, somewhat subversive of European decorum.

Dinner over, we took an unfair advantage of our guests, and again approached the subject of our visit to the capital of the island. This time, thanks to the "good familiar creature, well used," things went smoothly, and it was arranged that we should start on the morrow if fine. We finished the evening over photographs and maps; and after the display on the part of our visitors of a knowledge of European history which put most of us to shame, they bade us adieu with bows so low and oft repeated, that our stiffer English backs suffered considerably in our vain endeavours to emulate them.

CHAPTER III.

THE LIU-KIU ISLANDS (*continued*).

Our projected visit to Shiuri had apparently become generally known, for on landing early on the following morning we were confronted by an enormous crowd. Some thousands of people must have been present, for the pier and the streets leading to it were filled with a dense mass of human beings. Our friend Uyeno was waiting to receive us, attended by some other officials, and conducted us at once to the Vice-Governor's residence, where we were supplied with the inevitable tea and pipes until the chairs which had been ordered for us should be ready. We were shown some maps of the country, the outlines of which, judging from our own charts, appeared to be tolerably correct. Our inquiries as to the natural history of the island led to the production of two books upon the subject, written in Japanese and profusely illustrated. The flora may have been represented with a fair amount of success, but, on turning to the ornithology, we found plates of many species which it was difficult, if not impossible, to recognise. The artist had apparently given full play to his imagination, and the results, although pictorially striking, were not such as greatly to add to our knowledge of the Liu-kiuan fauna. Shortly afterwards we were informed that our chairs had arrived, and on going out we found them the foreground of a picture which consisted for the most part of human faces. The opportunity was too good to be lost, and we took a photograph of the scene before starting. Our chairs, or rather palanquins, were little, square, bamboo cages barely three feet in height, with an opening at each side. The head room was still further reduced by the pole being placed inside, and for a European, who cannot be "coiled down" with the facility of a Liu-kiuan, it was a matter of considerable difficulty to get in without leaving some portion of the body outside. These rather distressing conveyances were most beautifully made of plaited bamboo slips, coloured red, black and yellow in

various patterns, and were furnished with little windows of wonderful neatness of construction. Our bearers were of a size to match the palanquins, but of sturdy build. They were clothed, or rather unclothed, in Japanese fashion, most of them wearing a waist-cloth only, though some were provided with a *haori*, or whatever the equivalent Liu-kiuan name may be,—a short upper garment made of coarse blue cotton. The dress of the islander of every rank appears to be nearly identical with that of Japan; almost every one wearing the *kimono*—a full-sleeved, loose robe reaching down to the feet, and cut V-shaped at the neck. It

LIU-KIUAN WITH HACHI-MACHI.

is folded across in front so as to bring the opening beneath the arm, and is confined by a girdle at the waist. To this girdle are attached the pipe-case and tobacco-pouch, by means of large *netsukes* or buttons, made of bone or ivory according to the wealth of the owner, and often very prettily carved. Like a Japanese, a Liu-kiuan would as soon think of going out without pipe and tobacco as an Englishman without his boots. Former writers have described the people as wearing the *hachi-machi*, a cap of peculiar shape, with a flat top, but with the back and front formed of overlapping layers of silk, much as if the head were encased in "a figure-of-eight" bandage. These caps are of different colours, according to the rank of the individual, but they appear to be

hardly ever worn now, and almost everyone goes bareheaded, the better classes carrying paper umbrellas to protect themselves from the sun. The labouring population, and those of inferior rank, are invariably barefoot, but their superiors wear the *chaussure* of the Japanese,—sandals and white stockings; the latter, if the expression be permissible, having a thumb for the great toe. The women dress like the men, but without the girdle, and the *kimono* is accordingly fastened in some way at the side.

Our bearers started off at a good pace, which rather taxed the efforts of the crowd to keep up with them. We soon got clear of the town, and shortly afterwards crossed one of the rivers flowing into the harbour. The bridges in Liu-kiu appear to be extremely well made. They are built of stone, and the balustrade is often a somewhat elaborate affair. In this case it was of large slabs, pierced with circular openings, between which were well-executed carvings of animals, fish, shells, and flowers. Whether the island is subject to peculiarly heavy rains or not, I do not know, but the piers were extremely massive. The road exhibited like evidences of labour, for it was paved the whole distance from Napha to Shiuri with small blocks of coralline limestone, which, though well enough for booted Europeans, must, one would have imagined, be more than trying to the bare-footed natives. Our men, however, made nothing of it, but trotted along at a pace that would have done credit to the best hammock-bearers in Madeira. Our palanquins were carried in a slanting direction along the broad road; the angle being changed from time to time, so as to give each shoulder the same amount of work. It was what in military parlance would have been termed moving to the front in echelon. By this means we were able to get an unobstructed view of the country in front of us, and at the same time to carry on conversation with our neighbour if we felt inclined. The ground rises but gradually at first, and the road leads through fields of paddy, passing every now and then some peasant's hut half hidden in clumps of bamboo and banana. As we increased the altitude, millet and sweet potato seemed to take the place of rice, and we noticed with what care the land was cultivated, and how much time and labour must have been expended on the elaborate system of terracing in vogue, so that the somewhat uncertain supply of water should be used to the utmost advantage. No hedges break what, but for the presence of small abrupt hills and clumps of trees, would otherwise be a rather monotonous landscape, but their place is supplied by the low gray side-walls of the terraces. We passed several parties of natives on the road, who looked at us with undisguised astonishment, but were nevertheless not prevented thereby from bowing profoundly. Some of them were driving down ponies laden with market produce, but in no case were they mounted, although it seems that the upper

classes occasionally ride. These Liu-kiuan ponies are sturdy little animals, rough-haired, and very diminutive. They have, doubtless, been imported from the mainland, and like the oxen, and indeed the natives also, have proportioned themselves to the size of the island.

The rapid step of our bearers—one hundred and eighty paces per minute—carried us over the ground well, and in spite of a broiling sun they seemed but little distressed. About an hour after leaving Napha we approached a grove of pine-trees of unusual size, and shortly afterwards halted beneath them, at the gate of what, we were informed, was one of the palaces of the Liu-kiu kings. By the side of the road a stone pillar was standing, green with the moss of many a bygone year. Its inscription—"Superiors and inferiors alike must here dismount and rest"—was still legible, written on the one side in ordinary square Chinese characters, and on the other in Japanese *katakana*. Remote as Liu-kiu is from the world's turmoil, and jealously as it has been guarded from the inquisitive eyes of foreigners, it forms no exception to the inevitable rule that nothing is permanent but change. The pillar has outlasted the use for which it was intended, for the last king of the Liu-kiuans has ended his reign, and the islands now form a part of the possessions of the Mikado. In 1879, shortly after they had come to terms with the Chinese with respect to the Formosan difficulty, the Japanese, whose power in the Liu-kius had been gradually increasing, played the last and winning card of the game by inducing the king to visit Japan. He has never returned, and a Japanese governor now fills his place. How he passes his time history does not relate. Perhaps, like Cetchwayo, he is taken from time to time to see the Zoological Gardens. England, with the marvellous wisdom that has of late years characterised her foreign policy, restored the African monarch to his country. Japan, however, is still young and unsophisticated; and in spite of the pension presented to him, and the deference paid to his wishes by the Mikado, I should be much surprised if the Liu-kiu king has not seen the last of his native land.

Uyeno was at hand to show us the palace. It was built after the Japanese style, and was devoid of any particular interest but for a large reception-hall hung round with tablets, which our little friend eyed with great complacency. They were of red lacquer, of a peculiarly deep, rich colour, emblazoned in gold with the names of the Liu-kiu kings. They date back for about two hundred years, but though history records the dates and reigns of the sovereigns of the islands for many centuries, this present custom appears to have been of recent adoption. No tablet commemorates the name of him who has closed the list for ever, and my inquiry as to its future position was met by a smile of amusement.[1]

[1] Li Ting-yuen, the Chinese envoy sent in 1801 by the Emperor Kiaking to invest the king with the full sovereignty, recounts how they burnt silvered paper before these royal

We went out and rested, watching the sturdy little beasts of burden who had brought us up so well. They smoked and chatted in groups, and were evidently discussing the distinguished foreigners whom it was their privilege to carry—a doubtful honour with a temperature near the nineties, and a hill of no ordinary steepness before them. It was pleasant enough, however, beneath the shade of the large pine-trees, which here formed a thick dark grove, recalling, with its aromatic smell and soft carpet of pine needles, the scenery of more northern latitudes. This tree (? *Pinus massoniana*), is one of the most characteristic features of the landscape in Liu-kiu, and is singularly cedar-like in appearance, with its wide-spreading horizontal branches. Below us, the waving fields of green paddy fell away gradually to Napha-kiang, whose red-roofed houses were here and there visible among the dark foliage. The harbour lay like a map beyond, calm under the sweltering heat, and away westwards against the horizon rose the dim outlines of the Kerama Islands. It was, in its quiet unobtrusive beauty, as charming a view as one could wish to see.

From the little palace—the somewhat gloomy memorial of the mutability of dynasties—the road leads up with a steep gradient to the capital. The scenery becomes more broken; more romantic, in guide-book phraseology. The country is less highly cultivated, and abrupt hills and small coppices take the place of the fields of rice and beans. As we advanced, Shiuri became visible again; its fortress crowned with pines, standing out against the sky-line. Here and there we got glimpses of pretty valleys lying on either side of our path, but, on approaching Shiuri, walls of heavy masonry shut out all view except that immediately in front of us. The gate of the city is more Chinese than Japanese in construction—a sort of two-storied porch, the gable ends of which are slightly upturned, supported on four enormous wooden pillars, which are strengthened by piers after the fashion of the heavier *torii* in front of the Shinto temples in Japan. The road leads hence straight up to the fort and palace on the summit of the hill, but our destination being the guard-house, which here, as at Napha, appears to serve also as a sort of *kung-kwa* or rest-house, we diverged to the left. Accompanied by a crowd which threatened before long to reach the dimensions of the one that witnessed our start, we passed through a broad street, and disinterring our cramped limbs from the uncomfortable palanquins, found ourselves before one of the quaintest scenes imaginable.

Perhaps one of the greatest charms that Japan has for Europeans, at any rate on first acquaintance, is its unreality. As far as it affects the natural features of the country, I confess that I think the attraction

tablets. "Each one," he says, "is called *shin-chu*, deified lord, and is known by his own name (*i.e.* they have no posthumous temple name, as is the custom in China and Japan), except four, who were the most renowned, and are called by posthumous titles."

fades with wonderful rapidity. I do not mean that there is no scenery of real beauty in Japan, for every one who has seen Nikko under the reddening maples, or explored the splendid gorges of the Tenriu-gawa,

ENTRANCE GATE OF SHIURI.

must allow that their beauty is hardly likely to be surpassed in any country. But the ordinary views of village life, which are to the newcomer so attractive from their very novelty, eventually become rather more than wearisome. The scene that lay before us had this Japanese

peculiarity of quaintness and unreality to a marked degree, but was at the same time so beautiful that it was a great disappointment to me when I afterwards discovered that, owing to a faulty plate, my photograph of it had been a complete failure. The house was placed at the edge of a miniature lake, whose still, black waters were dotted with lotus plant. The rich green leaves and delicate pink flowers were mirrored in its surface with marvellous clearness, and on the opposite bank it was hard to trace the limits of the water, so merged was the reflection in the reality. Here a hill rose steeply, a mass of dense vegetation, in which gnarled trunks, masses of creeper, and feathery fronds of the tree-fern mingled in graceful confusion. A gap in the foliage revealed the battlements of the citadel above, weather-worn and gray with age, and over the grotesquely-shaped stone bridge, whose open balustrading was richly carved, a crowd of people poured from the busy street beyond to gaze their fill at the unaccustomed sight we afforded them.

After resting a while we were conducted to the fortress, whither none of the crowd who had hitherto surrounded us were permitted to follow. Our path skirted the lake, and crossing another picturesquely-carved stone bridge, passed upward through a shady grove of fine old trees to the fortress gate. On our way we came upon yet another lotus-pond, its surface almost hidden by the luxuriance of the plants. Its centre was occupied by a tiny temple or shrine, accessible by a lilliputian causeway, but from the rankness of the grass around the latter it did not appear to be much visited. The gate of the fortress was guarded by two fierce-looking stone lions and a diminutive Japanese of a most unwarlike aspect. On entering, we were able to realise to some extent the vast area that is included within the fortifications. It is extremely irregular in shape, and it is evident that no settled plan has been followed in the construction of the defences, which have been merely adapted to the character of the ground. Roughly speaking, however, there appear to be three distinct lines of fortifications, with ample space between them for the manœuvring of any number of troops. Besides these, there is a perfect labyrinth of smaller walls, among which it would have been no difficult matter to lose oneself; while the citadel within the inner line rises here and there into picturesque towers and battlements delightful to an artist's eye. The masonry is almost Cyclopean in character, and the blocks of stone are joined with wonderful accuracy. In this and other respects, the work appeared to us to be considerably superior to that of the Japanese. Some of the walls, for example, are upwards of sixty feet in height, and of enormous thickness. They are built in the form of a series of inverted arches, which, doubtless, helps them greatly in sustaining the tremendous pressure of the earth behind them. In the present age of large ordnance, these wonderful defences would, of course, be reduced with the greatest ease, but, in the old days of bow and arrow

THE INNER LINE OF FORTIFICATIONS, SHIURI.

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and hand-to-hand fighting they might just have been considered impregnable.

Passing the outer gate, the ground dips, and, amid large plantations of the stiff-looking *Cycas*, a number of what must at one time have been storehouses are visible in a state of semi-ruin. The view of the second line of fortifications from here is admirable, and the path leading directly beneath the huge walls rendered their height the more impressive to us. As is the case in all the walls we saw in Liu-kiu, these slope outwards at the base in a bold curve, which is even more pronounced than in the feudal castles of Japan. At the foot of these walls, and close to the second gate, we came upon a spring of water gushing from a cleft in the solid rock, over which was carved in Chinese characters, "This water is very good;"—a naive remark that a Chinese envoy on a visit to the island had caused to be committed to posterity. Other inscriptions, equally original in character, had been cut on the rocks close by, all of which were the productions of the same author, who, although perhaps not possessed of the divine *afflatus*, appears at any rate to have been much pleased with all he saw. The gateway through the second lines is of very massive stonework, as indeed is the case with all. It is spanned by an elliptical arch, a common feature in Liu-kiuan architecture. Within are the barracks, or rather what serve as such at the present time, for we discovered that about two hundred Japanese soldiers were stationed there. In the large courtyard surrounded by these buildings we came across a small squad of them drilling. Uyeno was evidently rather disturbed at this incident, being apparently desirous that we should remain in ignorance of the fact that the castle was now occupied by Japanese troops. At the south end of this courtyard was the entrance to the ancient palace of the kings of Liu-kiu—a holy of holies into which, as far as I can discover, no European had previously penetrated. Captain Basil Hall, Sir Edward Belcher, and Captain Beechey were all unsuccessful in their attempts to see the capital; and though the pertinacity with which Commodore Perry stuck to his claims of returning the state visit at the Castle of Shiuri was rewarded with success, the party were apparently not admitted beyond the anteroom of the palace. Mr. Brunton, who seems to have been the latest visitor to the islands who has published any account of them,[1] found the inner gates closed; and the majority of the few remaining visitors have either never visited the capital, or if so, have not been permitted to enter the gates of the fortress. It was, therefore, with no little interest that we passed between the two huge stone dragons guarding the entrance, and found ourselves within the sacred precincts.

A more dismal sight could hardly have been imagined. We wandered through room after room, through corridors, reception-halls, women's

[1] "Transactions of the Asiatic Society of Japan," vol. iv. 1875-1876.

apartments, through the servants' quarters, through a perfect labyrinth of buildings, which were in a state of indescribable dilapidation. The place could not have been inhabited for years. Every article of ornament had been removed; the paintings on the frieze—a favourite decoration with the Japanese and Liu-kiuans—had been torn down, or were invisible from dust and age. A few half-rotten mats lay here and there, but the floors were for the most part bare, and full of holes, which, combined with the rottenness of the planks, rendered our exploration a rather perilous proceeding. In all directions the woodwork had been torn away for firewood, and an occasional ray of light from above showed that the roof was in no better condition than the rest of the building.

From these damp and dismal memorials of past Liu-kiuan greatness it was a relief to emerge on an open terrace on the summit of one of the great walls, from which we got a splendid view of the island. Here we discovered a room which was in a tolerably good state of preservation, and enjoyed our tiffin. We were joined by the officer of the Japanese troops, who made his appearance laden with a large water-melon, which, with the customary grovellings and abasements of his country, he deposited at our feet. He spoke no practicable language, but in these lands of perpetual thirst, the contents of tumblers accompanied by polite salutations will do wonders, and before long we were getting on swimmingly. I had a great desire to get at further particulars of the state of the island under its new rulers, and tried our new friend and Uyeno upon the subject, but in vain. The latter, who, if, he chose, could be intelligent enough, suddenly became hopelessly stupid, and after a few reiterated questions and answers *à travers*, I gave up the task in despair.

LIU-KIUAN GIRL, NAPHA-KIANG.

From a turret commanding extensive views of the island, Uyeno had pointed out a hill some two or three miles to the south-east as the site of another palace, and readily acceded to the desire we expressed to visit it. We accordingly started without loss of time, our palanquin-bearers carrying us at a rapid pace over broken country with atrociously bad roads. On our way we passed through a pretty village, the houses of which, pleasantly bowered in bamboo and banana, were thatched with straw in a peculiar fashion, the

LOTUS-LAKE AT T'SKINA.

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ridge of the roof being raised into a hump and covered with thickly plaited bamboo. Here the women came out fearlessly to look at us, and we bargained for some of the curious horn and tortoise-shell pins with which they decorate their hair.

On arriving at our destination, which we learnt was called T'skina,[1] we found a charming house ready for us—the summer residence of the late king. We reposed on the snowy mats, and drank the excellent tea provided for us. In front, a level lawn and a border of bright flowers gave a wonderfully home-like aspect to the scene, the more so from its forming so marked a contrast to the rest of the garden. The large lotus-pond beyond, like the one we saw in Shiuri, had a little island-temple in the centre, connected by two quaint stone bridges with the land. The scene, with its background of dark pines, lent itself so admirably to photography, that I took advantage of it, to the great mystification of some of the Liu-kiuans. Being, however, even more anxious to secure ornithological specimens than photographs, I started on a naturalist's ramble, in the hope that the shady groves of the garden might prove a productive hunting-ground. Hitherto, wherever we had been, collecting had been rendered an impossibility by the crowds of people surrounding us. But here, in spite of the quiet and retirement of the spot, I was not more fortunate. Hardly a bird was to be seen, and I returned empty-handed to the house. In the account of Commodore Perry's expedition to the islands, the extreme paucity of bird-life is noticed. From the Liu-kius not being truly oceanic islands—geological and other evidences tending to show that they were in all probability at some time or other connected with the mainland—this would hardly be expected, but it was certainly borne out by our own experience. The shortness of our visit, however, and the crowds by which we were constantly surrounded, prevented any real work in this direction, and the islands still remain an almost virgin ground for any future explorer, both in this as well as other branches of natural history.

Close to this summer residence of the king are the ruins of another castle, which are said to cover a great extent of ground. We had, however, no time to visit it, and before long were *en route* for Napha-kiang by a cross-country path leading through a succession of paddy-fields. Entering the outskirts of the town, we were invited to tea by Uyeno, and conducted to a pretty little house, the access to which was by a small gateway in the massive stone wall which appears invariably to line the streets of Liu-kiu towns. We sat in an open room looking on to the miniature Japanese garden, which was planted with the dwarfed and grotesquely-shaped trees beloved by the subjects of the Mikado. Uyeno's wife presently appeared; a pleasant little body

[1] Probably identical with Commodore Perry's Tima-gusko; *gusko* meaning castle.

who received us on her knees, bowing with the extravagant courtesy of her nation until her forehead touched the ground. These elaborate compliments over, we discussed our tea; and Uyeno in his capacity of physician being doubtless anxious to exhibit his chemical skill, proceeded to construct a compound of various salts, which on being mixed with water, was, we gathered, intended to represent a species of lemonade. It fell to my lot to be the *corpus vile* on which the experiment was to be tried, and, with the prospect of a premature decease looming before me, I raised my glass, and pledged my host with one desperate gulp. The result, if anything, exceeded my expectations. The beverage was *not* a success; indeed, words would fail me were I to attempt to describe the nastiness of the concoction, so, considering I had offered a sufficient sacrifice on the altar of politeness, I thought myself justified in leaving the remainder. By dint of carelessly oversetting the glass, or of pouring the contents into the garden while admiring the scenery, the rest of us passed through the ordeal with more or less success; but bearing in mind the apparent potency of the draught, it was thought advisible to take leave of our hosts without delay.

The presence of our palanquins outside had revealed our whereabouts to the inhabitants of Napha, and the usual enormous crowd had collected to wait for our appearance. The excitement on our return was even greater than that we had caused at our departure, and as we trotted along, fresh crowds joined us at every street corner. Our sturdy little bearers put on their best pace, and we swept along regardless of anything that might lie in our path. Most of those we met were wise enough to run with the stream, or to flatten themselves against the wall until it had passed, with the single exception of a grave-looking old gentleman with a baby in his arms,—of the stuff of which heroes are made. In him duty was swallowed up in no considerations of caution, and regardless of the advancing multitude, he calmly awaited our approach, and executed the profoundest of bows. He never finished it. In an instant the wave of humanity had overwhelmed him. Taken in flank by two solemn damsels whose eyes were steadily glued on the most ornamental of our party, he was capsized in a moment, and the unhappy baby flew out of his arms with an impetus which must have caused considerable discomfort in its check. Both were, however, almost instantly rescued, or it might have gone hard with them; and from my last glimpse at the old gentleman's unmoved face, it appeared as if he regarded the affair as one of the common incidents of life. Placidity of disposition and imperturbable good-humour seem to be the normal condition of this pleasant little people, and I do not think I saw a cross look or heard an angry exclamation during the whole of our visit.

We reached the pier without further accident, and were at length able to get free from the good-natured though somewhat tiring multitudes who surrounded us. Little Uyeno and the secretary waved their fans in adieu; the bystanders executed such obeisances as their cramped position and the insecurity of their footing at the edge of the jetty permitted; and in a few minutes we were once more on board, somewhat fatigued with our exertions, but pleased with the success of an expedition which had proved even more amusing and interesting than we had anticipated.

COCONUT WATER-JAR.

Next morning we made preparations for our departure. Our wild-looking American friend, through whose agency we had obtained a few tons of charcoal, came off to pay us a visit. We afterwards discovered that he was somewhat better acquainted with the state of the market than we were. Shortly afterwards Uyeno made his appearance, bringing a few Liu-kiu curiosities which he had kindly undertaken to procure for us — snake-skin *samisens*, hair-pins, lacquer plates with open-work bamboo edges, and such like. No old red lacquer was to be obtained, and, more unfortunately still, he had been unable to get me a copy of the work on the natural history of the island which I had seen at the Governor's house. As a parting present from himself he had brought us some specimens of a large and beautiful iridescent shell (*Avicula macropteron*), which, he told us, was very rare on the islands, and greatly valued for its beauty. Our healths having been then duly drunk, we returned with our visitors, and paid a farewell visit to the Vice-Governor, with whom a mutual exchange of compliments and presents took place. Among the latter we received some curious maps of the Liu-kiu and Meiaco archipelagos, and a Japanese phrase-book in Liu-kiuan.

Late in the afternoon we weighed anchor, and proceeded round the southern end of the island. We kept off the land with the intention of examining the supposed position of the Heber reef, but could see no signs of it. A little later and Okinawa-sima was lost to view, and the south-west breeze was wafting us rapidly towards Japan, laden with the mingled memories of ruined castles and the waving of innumerable fans.

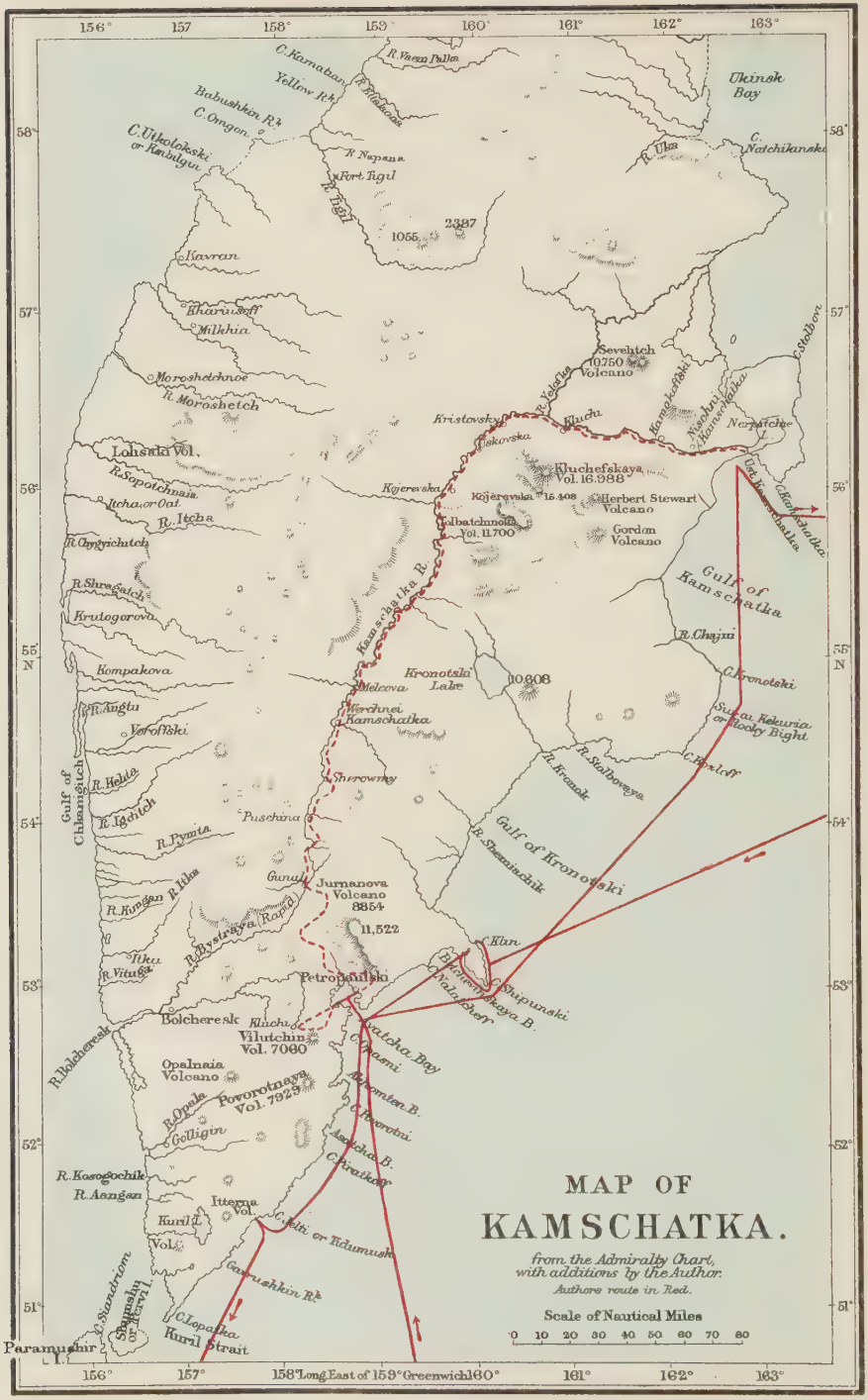
CHAPTER IV.

KAMSCHATKA.

A FAVOURING wind and current bore us rapidly from the Liu-kiu Islands towards the Land of the Mikado. Past the Linschotens; past the wild and rugged coast of the southern part of Nipon; past Simoda Harbour, where in the terrible earthquake of 1854 the Russian frigate *Diana* was lost; and lo! almost before we have finished home letters, and written diaries up to date, the sharp rattle of the cable sends a convulsive shudder through our little ship, and we are at anchor in Yokohama Bay.

Japan! What a flood of recollections pour into the mind at the mere mention of the word! A *pot-pourri* of quaint castles and still quainter streets, of jinrickshas and gloomy groves of cryptomerias, of stately *Torii* and squalid huts, of "curios," lotus-ponds, and scarlet maple. Once more one is drinking tea round the *hibachi*, or carrying on a flirtation under linguistic difficulties with some bright-eyed, tittering *mousmi:* once more one is fighting legions of fleas and an equal number of odours in some noisy tea-house. And above all, ever present to our mental vision, and pre-eminently the *cosa di Giappone*, Fuji, the sacred mountain, rears his snowy cone, unchanged amid the waves of innovation that lap his feet.

Those of us as yet "griffins" were anxious to make acquaintance with the country, and those of us who were no longer such were equally ready to renew it. Few countries in the world are so taking at first sight as Japan. The absolute novelty of almost every surrounding object, and of every custom, is so striking that it cannot fail to arouse the interest of even the most *blasé* of travellers. Most countries have many points in common with neighbouring or other lands. If you know your Constantinople, even Persia will scarcely seem strange; if you are at home in India, you are not absolutely unfamiliar with many characteristics of Malaysia and its inhabitants. But Japan is Japan, and



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not the most intimate acquaintance with any other part of the globe will enable you to form any accurate realisation of it.

I will not weary my readers by adding to the already superabundant list of sketches of Japanese life and travel. If such a thing were possible, the country has been described *ad nauseam* already, and holds but few secrets for us to disinter. In the pages of Sir Edward Reed's book those who are unappalled by names of almost impossible pronunciation may learn considerably more of the history of the Land of the Rising Sun than they are likely ever to remember, and in Mitford's "Tales of Old Japan" the reader is brought back to a now bygone era with life-like vividness. But for scenes of everyday life, for photographs of the character and characteristics of this wonderful little people, few writers have equalled Miss Bird, and her book must always remain as a faithful picture both for the amusement and instruction of future travellers.[1]

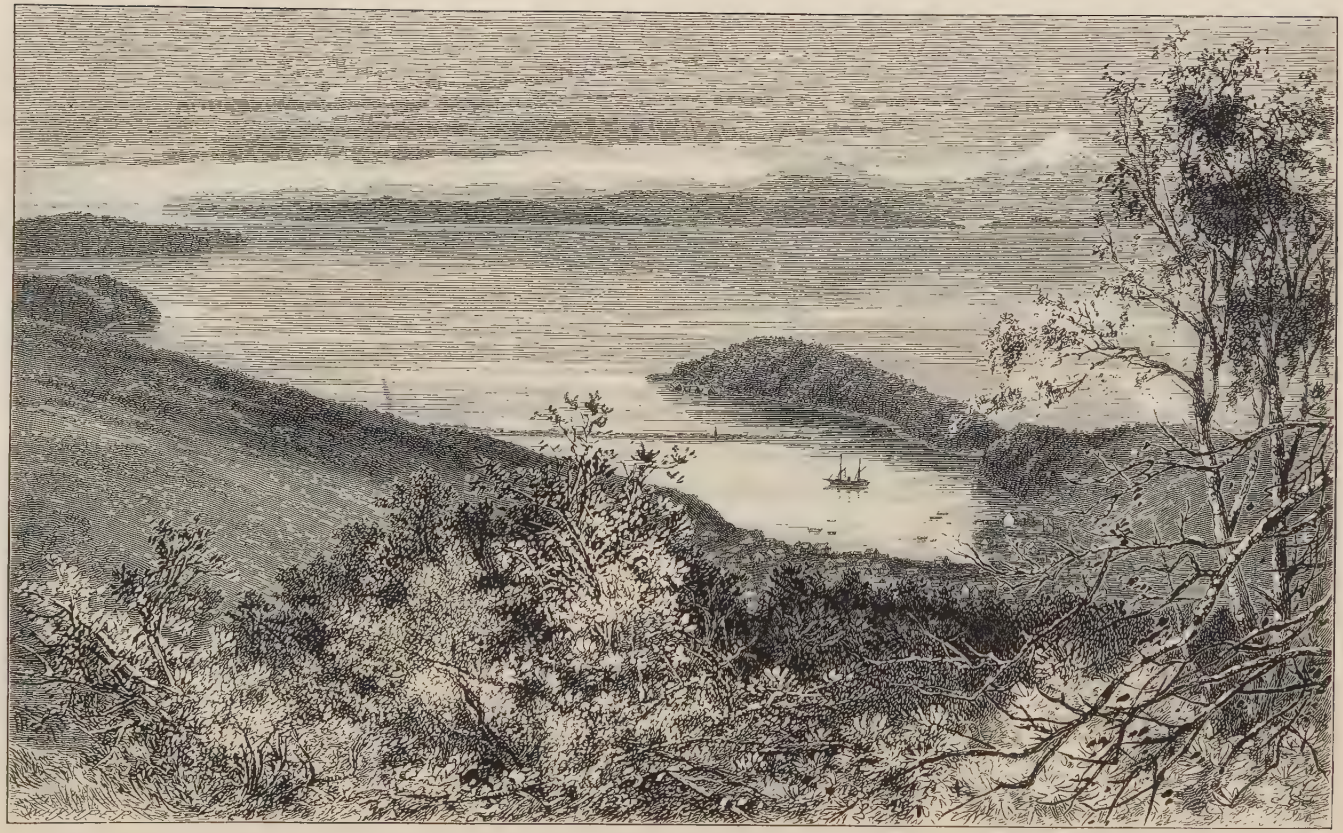
On the afternoon of August 4th, we weighed and left the port of Hakodadi in Yezo, northward-bound for Kamschatka. We dipped our farewells to old friends of H.M.S. *Champion* and *Zephyr*, and steamed out against a fresh easterly breeze. As we proceeded the wind increased, and the weather became so thick that we resolved on running in under the lee of Cape Siwokubi, and anchoring for the night. Next morning it was clear, though still blowing strong from E.S.E.; but as we were anxious to lose no time, we put the ship under fore and aft canvas, and beat under steam and sail past Cape Yerimo, the southern point of Yezo, into the open sea. The Kurosiwo or Japanese current—the Pacific homologue of the Gulf Stream—widening as it passes the eastern coast of Japan, runs northward as far as Kamschatka, and it is to its warmth that the comparative freedom from ice of that coast is supposed to be due. Between it and the Kurile Islands is a narrow countercurrent of cold water, running to the S.W. With the intention of avoiding the latter, and obtaining what advantages we could from the Kurosiwo, we resolved on shaping our course so as to keep at a uniform distance of about a hundred and fifty miles to the eastward of the Kuriles, where the current is supposed to be strongest. The result, however, was a failure. For the first two days we experienced a northeasterly set, but we had no sooner got fairly out into the presumed middle of the Kurosiwo than we encountered a southerly current. At the same time we entered the region of fog, which, during the summer, is an almost constant phenomenon of the northern part of the North

[1] I cannot let this opportunity pass of recording the many obligations we owed, and the numberless kindnesses we received at the hands of the late Sir Harry Parkes. His generous hospitality, the help he was always ready to afford us, the keen interest that he took in our cruise to Kamschatka—all these are deeply impressed on our memories. "His death is a national misfortune," ran the telegram which announced it. But all those who knew him, however slightly, must have felt his loss as that of a personal friend.

Pacific. This fog apparently formed a stratum of no great depth, for, although thick enough all round us, it was often sufficiently clear overhead to enable us to get a glimpse of the sky, and although morning sights were impossible, we were always able to get a meridian or ex-meridian observation for our latitude.

Navigation in these lonely and misty seas presents but few points of interest even to the sailor, and it was accordingly with no little pleasure that, on the morning of the 13th of August, we emerged from the fog much as a train runs out of a tunnel, and found that Kamschatka was in sight. The sharp peak of the Vilutchinska volcano enabled us to make out our position, and we steered north for Avatcha Bay. It was a magnificent morning, and as the yacht rolled heavily over a dark blue sea, on whose surface the waves broke in patches of snowy whiteness, now plunging her bows deep into the water with all the sense of pure physical enjoyment of a living creature, now shaking herself free and pouring the seas in bright streams from her scuppers, she formed a picture which might have aroused the admiration of even the most apathetic of landsmen, and one which was provided with a fitting background. Rarely have I seen a wilder-looking coast than that of south-eastern Kamschatka. The brilliant sunshine which poured upon rock and headland redeemed it from gloom, but the wildness and desolation of the scene was indescribable. Precipitous cliffs, at the foot of which none but a bird could land; deep valleys running down to the sea at whose mouths still lay the accumulated masses of last winter's snows; pinnacle rocks like rows of iron teeth shown to warn off any one rash enough to contemplate a landing,—this was what met our gaze as we anxiously scanned the coast with our glasses. Beyond, the land rose in abrupt humps and irregular masses, and appeared to be clothed with a uniform growth of low, but dense underwood, above which the distant cones of snow stood out clear and hard against the sky. It was an impracticable-looking country enough, but we had visited it with the firm intention of going through it, and experience in other lands having taught us how often difficulties disappear upon a closer acquaintance, we did not allow ourselves to feel discouraged. An hour or two later we arrived at the narrow entrance of Avatcha Bay, and shaped our course over a smooth sea for the little harbour of Petropaulovsky.

Avatcha Bay is one of the finest harbours in the world, if not actually the finest. Rio and Sydney have no mean claims for this position of honour, but those of us who had seen both were unanimous in awarding the palm to their Kamschatkan rival. A nearly circular basin of some nine miles in diameter, and with a narrow entrance opening to the S.S.E., it is roomy enough to accommodate the navies of the world. It is entirely free from dangers, has an even depth of ten or twelve fathoms, and owing to its affording excellent holding ground and



AVATCHA BAY AND PETROPAULOVSKY HARBOUR.

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being well protected from all winds, it is perfectly safe in all weathers. But the ordinary traveller will be struck not so much with its nautical excellencies, as with the superb scenery with which it is surrounded. To the south rises the Vilutchinska volcano, now quiescent, a graceful cone of about 7000 feet; and a little farther eastwards a huge flat-topped mass, exceeding it in height by a thousand feet or more, obtrudes itself as a rare exception to the rule of cone-shaped mountains which seems to obtain throughout the country. It is nameless in the charts, for we are in the land of volcanoes, and it is only 8000 feet in height! On either hand on entering are the two secondary harbours Rakova and Tareinska—the latter nearly five miles in length—and within them again are others on a still smaller scale. Nature here at least has treated the mariner right royally. The iron-bound coast without may be as bad a lee shore as any skipper wishes to see, and the Pacific Ocean may too often belie its name, but here he can rest quietly, and sleep *sur les deux oreilles* until such time as he weighs anchor for the homeward voyage.

But if the southern part of the bay is fine, it is difficult to find words to describe the beauty of its upper portion. We look north, and the scenery on which we have just turned our backs is forgotten, for there, shoulder to shoulder, their vast fields of snow glittering in the sun, stand a trio of volcanoes such as one rarely sees. From the summit of Avatchinska, the central peak, a delicate streamer of white vapour floats out horizontally, sharply defined against the blue of the clear northern sky. So closely do these mountains seem to hedge in the bay, that it is hard to realise the fact that they are twenty miles distant. But in Kamschatka the scenery is on a large scale, and a reference to the chart explains the matter in five figures.[1]

Mr. Frederick Whymper, in his "Travel and Adventure in the Territory of Alaska," has given an excellent illustration of this group of mountains. Koriatska, to the north and west, stands alone. Avatchinska and Kozelska are somewhat less lofty, the former being close upon nine thousand feet; while the latter is, according to different observers, either 5328 or 9054 feet[2] in height. Such a discrepancy can only be accounted for by the supposition that Avatchinska should be credited with the latter figures. During Mr. Whymper's visit in 1865, Koriatska alone emitted smoke, the others being apparently extinct; but in the month of June, ten years previously, Mr. Tronson found Kozelska in action, sending forth dense volumes of smoke, and covering the surface of the water with ashes.[3] Since then there

[1] The height of Koriatska is 11,554 feet.

[2] Tronson,—"Voyage of the *Barracouta*," p. 109.

[3] From the fact that Mr. Tronson appeared to consider Avatchinska and Koriatska as one and the same mountain, and gave an erroneous height for Kozelska, it seems far more probable that it was the first-named volcano that was really in eruption at the time of his visit.

do not appear to have been any eruptions, and in spite of the white pennant floating at the peak, the grand old mountain looks calm and peaceful enough, guarding the lonely stretches of forest and *tûndra* at its base.

It is only with an effort that one withdraws one's gaze from the exquisite beauty of mountains such as these. What is it that influences us so deeply in the sight of those eternal snows? In what lies that wondrous charm that we experience only in the regions of the north? After many years of travel I think that there is one scene which has, perhaps, remained more vividly stamped upon my memory than any other — a placid river in northern Lapland, down whose stream I floated, drinking in the perfect beauties of the changing autumn. Amid all the mass of scarlet and gold that hung above the mirror-like surface of

WHISKERED PUFFIN. (*Lunda cirrhata.*)

the water not a single leaf was stirring,—not a sound was to be heard. Before us lay the peaks of dazzling snow, and it seemed as though all Nature were hushed and worshipping at that throne of spotless purity.

Rest and purity then—the unattainable in other words—in these lie the charm. The fairest tropic scene holds no deeper meaning such as these. Beauty of form there doubtless is, a far greater beauty perhaps than that of northern climes, but, after all, it is but soulless. The teeming life of a tropic forest, the marvellous wealth of vegetation, the reckless sacrifice of the weakest, produce upon the mind the same effect as do the streets of a crowded city. No grandeur of "calm decay," no pathos of the changing seasons is here. It is a fierce struggle for existence, fatal to any except the most purely material thought.

The shores of Avatcha Bay extend to the traveller a more smiling welcome than the iron-bound coast outside. Here, the lower hills slope gently down to beaches dotted with driftwood, or, covered with birch

and heather, steeply overhang the sea. Behind they are backed by higher ranges clothed with undergrowth, and rising to the height of fifteen hundred feet or more. To the north-west only is this basin-like appearance broken, where the small Paraminka and Avatcha rivers have formed a delta with innumerable mouths. Low ground also intervenes between the three great volcanoes and the bay, but the height of the mountains annihilates the distance. Hardly a sign of human habitation is to be seen, but the calm surface of the water is broken by quantities of water-fowl, whose nesting-places are the steep rocks at the entrance of the bay. Most noticeable among them are the Whiskered Puffins (*Lunda cirrhata*), and the still quainter-looking Tufted Auks.

TUFTED AUK. (*Simorhynchus cristatellus.*)

The little village of Petropaulovsky is invisible, hidden behind a steep promontory forming the western boundary of its harbour. What an admirable harbour it is from a sailor's point of view can best be seen by a glance at the engraving. From the end of this promontory a shoal extends nearly to the other shore, but leaves a channel deep enough for ships of the largest draught. Within this again a sand-spit,—so straight, so narrow, and so regular in form, that it is hard to believe that it does not owe its existence to the hand of man,—runs out from the opposite shore to within a stone's throw of the promontory. We steam in steadily towards the land; to an on-looker it would seem as if we were deliberately beaching the vessel. "Starboard! hard a-starboard!" comes the order. "'Ard a-starboard," echoes the man at the wheel. "Hard a-port!" "'Ard a-port it is," he sings out, clawing the wheel towards him with foot and hand. "Well! I'm blessed if ever I see the likes

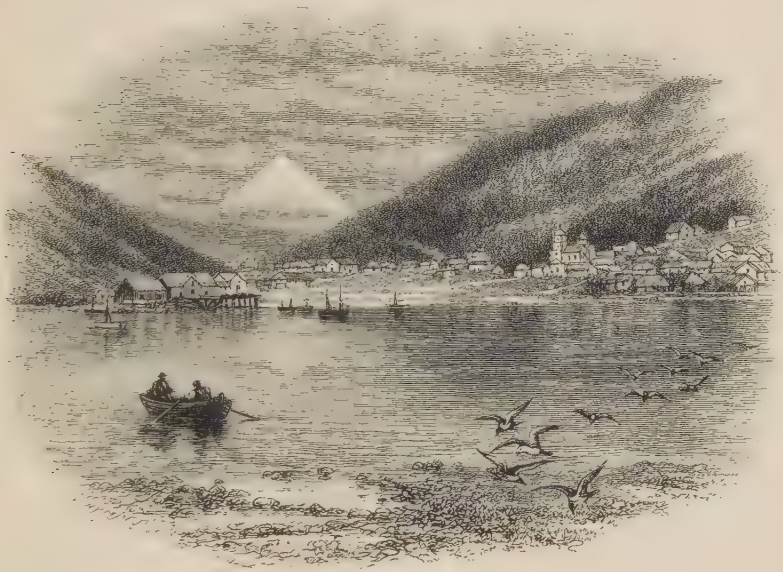
of this 'ere place," I hear Jack mutter as we are safely berthed, and, on the whole, I am very much inclined to agree with him.

Our arrival created no little excitement among the inhabitants of this remote little spot: it might possibly have created even more had we not entered the harbour almost at the moment of departure of the yearly fur steamer for Japan *viâ* Okhotsk. All Petropaulovsky had assembled to wave their adieux, and not a few of them appeared torn by the conflicting desires of seeing the last of their friends and of discovering the business of the new-comers. The steamer was hardly under way before we were receiving our visitors. They were but limited in number. Petropaulovsky, in spite of the imposing letters to which it is treated in the maps, is, after all, little more than a hamlet, and is probably stationary, if not actually decreasing, with regard to population. Clerke, in 1779, found the settlement consisting of thirty huts built upon the sand-spit to which I have already alluded, and consisting mostly of yourts or balagans.[1] Captain Cochrane, who in 1821 performed the unprecedented feat of walking across Siberia from Russia to Kamschatka, describes it as having increased to fifty-seven buildings, some of which were on the mainland; and at the period of the Crimean war it appears to have been as large as it is at the present time, if not actually larger. The town had been transferred to the head of the little harbour, where it now stands, and boasted of no less than two hundred edifices of all kinds. But in Kamschatka, as in other northern countries, winter storehouses, fish-drying sheds, and other out-buildings are so numerous, that the actual dwelling-houses may be reckoned at about one-third of that number. Kittlitz, in 1829, found the settlement to number about two hundred inhabitants, and at the time of our visit we were informed that there were over three hundred; a number that I should myself be inclined to think overstated.

Standing on the now deserted sand-spit,—the natural breakwater of the harbour,—the view of the little town and its surroundings is strikingly picturesque. To the left is the wooded promontory, the scene of the unfortunate disaster which occurred to the forces of the Allied Fleet in 1854. On the right a hill of some fifteen hundred feet dominates the town, whose log huts are clustered around the shores of the little bay. Here and there a white-painted house of greater pretension strikes the eye, and a stunted grove of trees shelters the church, and the graveyard studded with Russian crosses. Behind the town, artistically filling in the gap between the hills, rises the snowy cone of Koriatska; and the storehouse of the Alaska Commercial Company,

[1] A yourt is a semi-subterranean winter dwelling, roofed with turf. The balagans are only used in summer: they are rough wooden buildings erected on piles. The upper part serves as the dwelling-house, while, beneath, the salmon are hung up in rows to dry.

painted the dull Indian red that is so favourite a shade throughout Sweden, forms a pleasing patch of colour in the foreground. It did not take us long to make acquaintance with Petropaulovsky, in spite of its imposing name. The inhabitants, we found, called it Petropaulsk, and, in short, showed every disposition to make things easy for their visitors. Salmon and bilberries were sent off to us, and, on our remarking upon the presence of cows, a supply of cream and butter was not long in following. Society here is limited, the Europeans being but



PETROPAULOVSKY HARBOUR.

eight or ten in number. Mr. Lugobil, the local head of the Alaska Commercial Company, resides here, and superintends the shipping of the sealskins from Bering and Copper Islands; as does Captain Hunter, the cheery agent of Phillippeus and Company, another firm of fur-traders. Of stores (the American term is in use here) there are but two. One of them was owned by a kindly old Swede, who also acted in the capacity of Mayor. He had not visited his native land for thirty years, and it was evidently a source of the keenest pleasure to him to talk of it to one of us who knew it, and loved it almost as much as he did himself. The town is now no longer a military post, and the barracks and fortifications, razed to the ground by the English in 1855, have never been rebuilt. The entire authority is vested in the Ispravnik, whom, in spite of the exigencies of his profession, we did not find averse from the

seductions of trade. A Russo-American Jew, better known as the King of Kamschatka, of whom the Russian Government was extremely anxious to get rid, completed, with Dr. Dybowski, the list of Europeans of the sterner sex. The ladies were only four in number.

With Dr. Dybowski, who has acquired a European fame as a naturalist, it was a pleasure to make acquaintance. His life had been an eventful one. Imprisoned in Siberia for some time for taking part in the Polish insurrection, he had eventually been pardoned and made Government doctor of Kamschatka, in which capacity he had visited the greater part of the peninsula. Owing to the difficulties of communication excepting in the winter season, he had abundant time on his hands, which he had devoted with indefatigable ardour to his favourite pursuits. Geology, surveying, palæontology, photography and ornithology,—each and all had occupied his leisure hours, with results which were evidenced by the richness of his collections. None of the other Europeans knew anything of the country outside Petropaulovsky, and to him alone we were indebted for what information we could get about our projected route, as well as for many useful hints on Kamschatkan travel.

Our intention was, if the plan were feasible, to travel northwards from Avatcha Bay until we struck the head waters of the Great Kamschatka River, where we were to procure canoes if possible, or if not to construct rafts, and by this means float down the stream to the sea. Meanwhile, the yacht was to remain in Petropaulovsky harbour for a month or six weeks, and then proceed to the mouth of the river to await our arrival. We found that Dr. Dybowski, in spite of his extensive travels in the peninsula, had not himself performed this journey, neither was he aware of any other person who had attempted it. Communication often takes place with Nischni Kamschatka—an *ostrog* near the mouth of the river—in the winter, but the sledges do not, as in Lapland, travel on the river; and though occasionally a few of the lonely settlements upon its banks are passed, the track leads for the most part by short cuts overland, and we had no means of judging the distances or the length of time necessary for our journey. From Dr. Dybowski, however, we were able to obtain all the information that was to be got upon the subject; and to learn that, whatever other difficulties we might have to encounter, that of an insufficient supply of food was certainly not one. His accounts of the really marvellous abundance of fish, which at the time seemed almost incredible, we were destined later to find, if anything, understated. Whether the almost exclusive fish diet of the inhabitants of the country has any connection or not with the leprosy prevalent among them, it is difficult to say. Our informant described it as being a common disease, and he must have had considerable opportunities of judging, but it is remarkable that during our journey

through the country we met with but one solitary case. Scurvy was, we were told, uncommon, owing no doubt to the abundance of the wild garlic and the *sarana*—a liliaceous plant whose bulb is stored for the winter, and supplies the place of the potato. This latter vegetable has, however, become much more extensively cultivated of late years.

It was a matter of great regret to us that our acquaintance with Dr. Dybowski should of necessity have been so limited. He was on the eve of a long journey in search of fossils to the Kuril Lake, which lies in an almost unknown region at the southern extremity of the peninsula. It was by such pursuits alone that he was able to mitigate the loneliness of what was, in reality, an exile. During the winter he travelled over the country to such isolated spots of it as are inhabited, and saw his patients. These he was supposed to supply with such medicine as would suffice for their cure, or last them, should they be incurables, until the time of his visit in the following year! It is not every parish doctor whose district is spread over the extent of one hundred thousand square miles!

During the week that was necessary for the completion of our preparations we had abundant time for the exploration of Petropaulovsky and its surroundings. The numerous harbours and lovely scenery of Avatcha Bay would take a month to become thoroughly acquainted with, and it would be hard to imagine a more charming place for the naturalist and sportsman. Possibly, when the salmon rivers of Norway have reached a prohibitory price, and the game of India and South Africa has disappeared, some adventurous individual will recommend Kamschatka as a new field for sportsmen. At present, it must be confessed, it is not very easy to get there. Every year the port is visited by a Russian cruiser, and, if her officers should chance to be as excellent companions as I have on every occasion found those with whom I have been brought into contact, a traveller might possibly get the offer of a passage, which, if he has command of the French language, a strong head, and an unlimited capacity for sweet champagne, should be enjoyable enough. A steamer, or steamers, belonging to the Alaska Commercial Company make two voyages annually to the port, to ship the furs awaiting them there and at Bering Island. They start from Yokohama, and it would no doubt be possible to obtain a passage. On leaving Kamschatka for the second time, however, these ships do not return south, but proceed direct to San Francisco.

The weather upon our arrival was pleasant and invigorating to a degree; the days absolutely hot, with a brilliant sun and wonderfully clear atmosphere, and the nights cold, but bright. But for the mosquitoes nothing could have been more enjoyable. These pests, which render life in a northern climate almost unbearable during the summer, were not very numerous in Petropaulovsky itself, but in some

parts of Avatcha Bay we found them abundant, while in others not one was to be seen. As every one knows, the presence of these insects is almost always dependent on the existence of marsh, low-lying ground, or clumps of birches and other trees in the neighbourhood; but here, oddly enough, we found no such reasons to account for their erratic distribution. The little gardens of the settlement were aglow with bright flowers, though choked with weeds and coarse grass. But little cultivation was to be seen; a few patches of potatoes, cabbages, and such-like garden produce, surround the cottages here and there, but there are no cereals. Rye ripens in some parts of the valley of the Kamschatka River, and would probably do so here, according to Dr. Dybowski, but its growth is not attempted. To the Kamschatkan the harvest of the river and the sea is an affair of such supreme importance, and demands so much of his time, that he has but little leisure for agriculture even if he had the inclination.

There are no roads even in the little settlement itself, and, from the irregular distribution of the houses, and the equally irregular ground on which they are built, the traveller has to pick his way from one to another as best he can. It is needless to state that wheeled vehicles are, in consequence, unknown. The church, an uninteresting-looking building painted white, is practically the only public edifice.[1] Near it, and at the bottom of Mr. Lugobil's garden, stands the little monument erected to the memory of Bering. It is an iron column of no great size or taste, which was sent hither years ago from St. Petersburg, and, half buried in the lush grass which at this season of the year grows so freely in Kamschatka, it looked melancholy enough. It is a cenotaph, for the bones of the celebrated navigator rest far away upon the island that bears his name. A monument to Captain Clerke, the successor of Captain Cook, is, I believe, not far from it, but we did not see it. The town is, indeed, somewhat rich in these objects of melancholy interest, for in a gap in the western promontory, once the site of an old battery, the dilapidated remains of a memorial column to De la Perouse is still to be seen; while on the sand-spit at the entrance of the harbour an erection less pleasing to the eye of an Englishman is conspicuous, commemorating the success of the Russians against the forces of the Allied Fleet in 1854.

I must confess that, previous to our visit to Kamschatka, I had been in entire ignorance of the affair that resulted in such disaster to our forces. But little known or commented on at the time, it has probably long ago passed out of the memory of most of those of the past generation; while, owing to the success with which the matter was hushed up, it had

[1] At the time of Lessep's visit, in 1787, there was no church in the settlement, but he alludes to the former existence of one, and mentions that its situation was known "by means of a sort of tomb which formed a part of it."

but little chance of becoming known to the present. In the action of the 24th August 1854, we suffered a defeat as humiliating as it was ridiculous, and one for which, from the circumstance of our attack having been made on a town so insignificant, we could hope to gain no sympathy at the hands of other nations. The whole story was related to us by Captain Hunter, who was himself an eye-witness of the occurrence, but the details have been so clearly and concisely given by Mr. Whymper in his "Travel and Adventure in the Territory of Alaska," that I make no apology for quoting his account.

"In the autumn of 1854 (28th August [1]) six vessels of war—French and English, comprising the *President*, *Virago*, *Pique*, *La Forte*, *L'Eurydice*, and *Obligado*—arrived off Avatcha Bay: a gun, placed near the lighthouse at the entrance, was fired by the Russians, and gave the inhabitants of Petropaulovsky notice to be on the alert. Admiral Price immediately reconnoitred the harbour and town, and placed the *Virago* in position at a range of two thousand yards.

"The Russians were by no means unprepared. Two of their vessels, the *Aurora* and *Dwina*, defended the harbour, and a chain crossing the narrow entrance shut it in. There were seven batteries and earthworks, mounting about fifty guns of fair calibre.

"The *Virago* commenced the action with a well-directed fire, and several of the batteries were either temporarily or entirely disabled. The one farthest from the town on the western side was taken by a body of marines landed for the purpose. The guns were spiked. There were three batteries outside and on the spit, two at the termination of the promontory on the western side of the harbour, and one in a gorge of the same which opens on Avatcha Bay. It is in this little valley that the monument to La Perouse stands.

"The town was well defended both by nature and art. The hills shut it in so completely that it was apparently only vulnerable at the rear. There a small valley opened out into a flat strip of land immediately bordering the bay, and, although there was a battery on it, it seemed an excellent spot to land troops.

"Our vessels having taken up a new position, and silenced the batteries commanding it, seven hundred marines and sailors were put ashore. Half of them were English, half French; a large number of officers accompanied them, while they had for guides two Americans, said to know the ground. They appear to have expected a very easy victory, and hurried in a detached and straggling style in the direction of the town, instead of proceeding in compact form, in military order. A number of bushes and small trees existed, and still exist, on the hill-sides surrounding this spot; and behind them were posted Cossack sharpshooters, who fired into our men, and either from skill or accident, picked off nearly every officer. The

[1] This date does not agree with that on the monument, where it is given as the 20th-24th August.

men, not seeing their enemy, and having lost their leaders, became panic-struck, and fell back in disorder. A retreat was sounded, but the men struggling in the bushes and underbrush (and in truth, most of them, being sailors, were out of their element on land), became much scattered, and it was generally believed that many were killed by the random shots of their companions. A number fled up a hill at the rear of the town. Their foes pursued and pressed upon them, and many were killed by falling over the steep cliff in which the hill terminates.

"The inhabitants—astonished at their own prowess, and knowing that they could not hold the town against a more vigorous attack—were preparing to vacate it, when the fleet weighed anchor and set sail, and no more was seen of them that year."

The actual number that fell in this engagement is uncertain. In the "Nautical Magazine" for October 1855, it is stated that we lost 107 killed and wounded, but we were told that the total number of French and English who fell was 170 men. Under the hill at the back of the town still stands a rude enclosure, whose dilapidated white palings surround three crosses, beneath which Russians, French, and English lie side by side. Others were buried where they fell. The bodies of some of the officers were borne from the field by the Allied Forces, and interred at the entrance of the Tareinska Harbour on the opposite side of Avatcha Bay. They lie on a small promontory on the land side, opposite a little island. We had hoped to visit the spot, but the limited time we had at our disposal, and the preparations necessary for our expedition through the interior, prevented us. We were told that, in the spring of the preceding year, a party, of which our informant formed one, had searched in vain for the graves, in spite of that of the English admiral having been marked by a cross. The death of this officer is by the inhabitants of Petropaulovsky attributed indirectly to the result of the engagement. As a matter of fact, it occurred, I believe, upon the preceding day; the troops during the affair, being under the command of the French admiral.

In the opinion of those who had been in Petropaulovsky at the time, the disaster was chiefly due to the division of the forces on landing,—one body getting ahead of, and being fired into by the other. The thickness of the bush prevented a recognition of this error, and the attacking party imagined themselves taken in rear. The Cossacks took advantage of the mistake, and before long the Allies were in a state of confusion which the nature of the ground rendered hopeless. More met their death by being driven over the precipice, it was said, than actually fell before the rifles of the Cossacks.

The victors were left in peace for the time being, but, in the spring of the following year, the Allied Squadron once more made its appearance. The *President*, *Pique*, *Dido*, *Brisk*, *Encounter*, and

Barracouta, together with the French frigate *Alceste*, assembled off Kamschatka, and entered Avatcha Bay on the 31st May, 1855. They found the town completely deserted by the Russians. Three foreign residents alone remained, and from them they learned that the settlement had been evacuated by order of the Emperor upon the breaking up of the ice. Even the natives had fled. On the 7th June the batteries and magazines, which had been strengthened and increased in number since the engagement in the preceding year, were blown up, and two days later all the Government buildings were burnt to the ground. The latter proceeding was, in all probability, the wanton act of some English blue-jackets, and was done without the knowledge of our authorities. It was an unfortunate occurrence, the explanation of which could hardly be expected to be believed by the Russians, and the affair still rankles in the breast of the inhabitants of the little settlement.

A few days later the Squadron left, and the inhabitants returned to their homes. Poor little Petropaulovsky has to rest content on her honours of 1854, for the town has never been re-fortified, and is now no longer a military post.

One cannot be long in Kamschatka without making the acquaintance of that very necessary animal, the sledge-dog. When the fact is taken into consideration that for every inhabitant of the peninsula there are at least five or six of these animals, it will be understood that the effect produced is hardly inferior to that exhibited by the streets of Constantinople. "A dog's life" is a phrase which is here most appropriately realised. No comfortable home is provided for him to enable him to withstand the rigours of the arctic climate, and the poor beast, except when actually at work, has in most cases to "find himself." Long experience, and the instinct transmitted to him by his ancestors, have, however, given him all the resources of an old campaigner. Stumbling at night about the uncertain paths of the settlements, the traveller is not unfrequently precipitated into the huge rabbit-burrows which the animal constructs to avoid the cutting winds. His coat, nearly as thick as that of a bear, is composed of fur rather than hair. As for his manners, they are, like those of the midshipman's savage, almost non-existent. He has thoroughly grasped the fact that self-preservation is the first law of Nature, and does not scruple to act upon it, in its widest meaning, upon every occasion. Wonderfully well-trained, cunning, and enduring, he is at the same time often obstinate and unmanageable to a degree, and is apparently indifferent to the kicks and blows so liberally showered upon him by his master. Excepting in settlements where neighbouring stretches of *túndra* render the use of sledges possible in summer, he has a long holiday during that season. During this time he wanders over the country at will, sometimes returning at night to his burrow, at others being absent for days

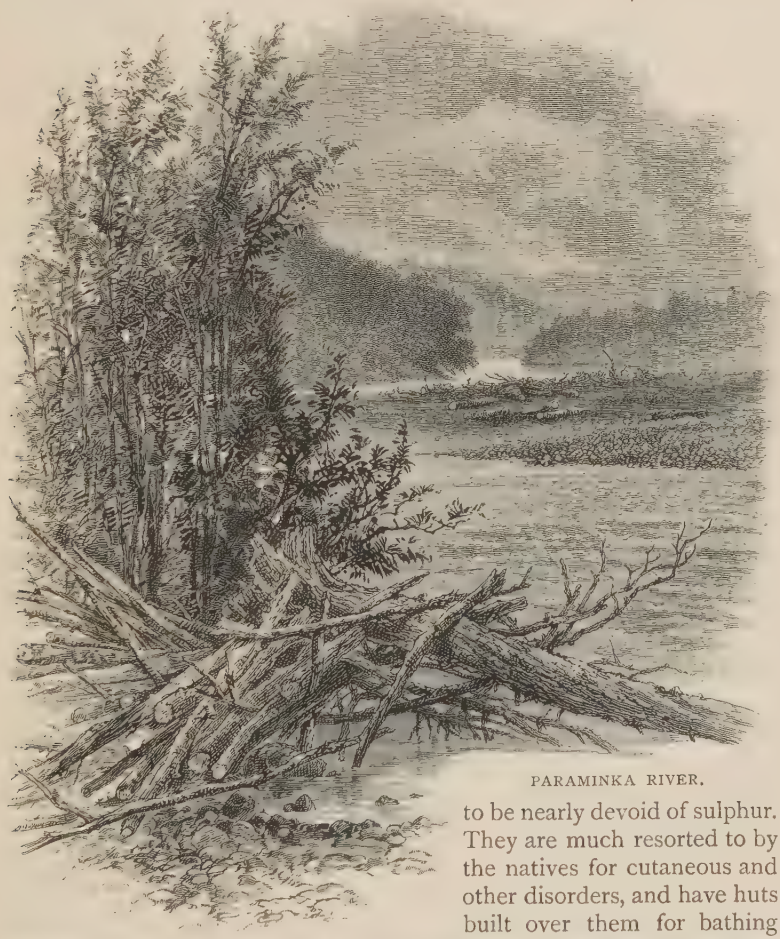
together. A good hunter and fisherman, he supports himself upon the game and salmon he catches, and it is but rarely that he deserts his master for good. But the inhabitants have to pay a good price for his services. Owing to his rapacity, it is impossible to keep sheep, goats, or any of the smaller domestic animals, and Kamschatka is one of the few countries in the world in which fowls are unknown.[1] *Rien n'est sacré pour un sapeur.* Raw hides, boots, and even babies, it is said, occasionally vary his diet!

To our ship's crew Petropaulovsky appeared little less than a paradise. The bright sunny weather and clear cold nights were a pleasant change after the heat of the tropics, and the forecastle mess was furnished with many unaccustomed delicacies. The harbour and rivers teemed with fish; periwinkles *à discretion* were to be had for the picking, and milk and bilberries were abundant. The whiting and herrings were, however, left in comparative peace, owing to the ease with which salmon were to be obtained at the mouths of the Avatcha and Paraminka rivers. On one occasion no less than three hundred of these fish were obtained at one haul of the seine, and the crew occupied themselves in salting, smoking, and otherwise preserving the spoil. Jack was in his element, and doubtless would not have objected to passing the rest of his life in such a fascinating spot. Our shooting excursions to various parts of the bay were much enjoyed by the boats' crews, and the forward part of the ship began ere long to be ornamented with bearskins that the men had obtained by purchase or barter from the natives. Meanwhile we had been making arrangements with the Ispravnik, and the individual I have before mentioned under the title of the King of Kamschatka, for the ponies that were necessary for the first part of our journey; but, as there was some delay in getting together the requisite number, a party of us started to visit the hot springs of Kluchi,[2] which lie some few miles from the shore on the other side of the bay. Excepting during strong south-easterly winds, which send a somewhat heavy swell into the entrance, the passage across is generally pleasant enough even in small boats. Though blocked with ice in the winter, the bay is, we understood, but rarely frozen right across, although the harbour of Petropaulovsky is, of course, closed for some months. Landing in a bay north-west of the entrance to Tareinska Harbour, we passed through an extensive birch-forest, and emerged at length on the shores of a picturesque lake, across which we were conveyed in dug-out canoes to a small village on the opposite shore. From here the road lies across a level *tûndra*, and can be travelled by dog-sledge even in the summer. Kluchi itself is a small village composed of a few log-built huts and

[1] In Petropaulovsky this loss is partially made up for by large quantities of sea-birds' eggs brought from Okhotsk, and the islands at the mouth of Avatcha Bay.

[2] Kluchi, I believe, is the Russian word for springs.

balagans, but, with its background of the Vilutchinska volcano, is prettily situated. It stands in an open valley, in which some attempts at cultivation are made. The hot springs—the steam from which is visible at some distance—have a temperature of about 108° Fahr., and appear



PARAMINKA RIVER.

to be nearly devoid of sulphur. They are much resorted to by the natives for cutaneous and other disorders, and have huts built over them for bathing purposes, thanks to the orders of the Ispravnik. Near the village runs a branch of the Avatcha River, down which our party paddled to the sea; and on arriving at the yacht we were pleased to learn that most of the horses had been brought into the settlement, and that there was every prospect of our starting on our long-planned expedition through the interior in the course of a couple of days.

CHAPTER V.

KAMSCHATKA—(*continued*).

EARLY on the morning of August 19th we rowed ashore with a somewhat formidable amount of baggage, and found the horses awaiting us. Of these there were sixteen; and four little foals, engaged in capering round their mothers, were, we learnt, also to join the expedition. This number, owing to our numerous *personnel*, was hardly sufficient, but as we had requisitioned almost all the available cattle in the neighbourhood of Petropaulovsky, we decided to make a start with them, trusting to be able to pick up others at the little village of Avatcha, about twelve versts distant.[1] Our party were ten in number, our three selves with two servants forming the yacht contingent. These latter were old campaigners. Louis, who had served in the Franco-Prussian War, and had been in the army before Paris in the terrible winter of 1870-71, had done much travelling in his master's service and elsewhere, and was without exception the very best servant I ever saw. Spiridione Zembi, a Maltese Greek, our cook, deserves no less praise. Master alike of his profession and of many languages, he contrived to produce dinners under the most trying circumstances which would not have disgraced the table of an alderman. European servants are, in rough travel, by no means always an unmixed good, and it is pleasant therefore to have to record an instance to the contrary. Nor were we much less fortunate in our two guides. Both were old sable-hunters and good backwoodsmen. Jacof Ivanovitch was a solemn, but good-humoured Siberian Russian, who knew the country well; and Afanasi Waren, in whom there was more than a suspicion of English blood, spoke our language very fairly. The latter was a jovial soul with a merry eye, and if report ran true, a great lady-killer. Under the sobriquet of "Half-nasty" he afterwards became an equally great favourite with our crew. Our complement was made up with three half-bred natives, in charge of the

[1] A verst is two-thirds of an English mile.

packhorses, in whose favour there is but little to say. Of the misdeeds of one of them, whom, from his partiality for the liquor of the country, we afterwards nicknamed Vodki, I shall have more to say in the sequel. Lazy, untruthful, and apt brutally to ill-treat their horses whenever we were not at hand to interfere, they caused the only trouble we had during the first part of our journey. The inhabitants of the river settlements that we were destined to meet with later were, however, as will be seen, far worse; and in comparison with them, our horse-boys came afterwards to be regarded in a far more favourable light than they really deserved.

AFANASI WAREN.

The pack-saddles used throughout the country are of an excellent pattern, and owing to the hooks with which they are provided, the necessity for the many lashings which are so inconvenient in this kind of travelling is avoided. A thick layer of bearskin was placed over the saddle-cloth, and effectually prevented sore backs. Our personal gear, enclosed in bags made from the skin of the hair-seal, was easily adjusted, but the photographic apparatus and other breakable objects required more care and time, and it was noon before we were fairly off. We bade adieu to our friends, and passed out through the narrow gap at the back of the village towards a small lake of brackish water which hems it in to the north. Here at one time stood the hospital mentioned in Captain Cook's "Voyages," but no trace of the building now remains. Circumventing the lake, we struck off to the north-west and, before long, the track, which had never been very well marked, became obliterated. Our path led through a rough but picturesque country, dotted here and there with stunted birches, and we steered across it for a certain point in the landscape recognised by our guides. By our side trotted one of the most ornamental members of the expedition, whom I have hitherto neglected to introduce—Verglaski, a magnificent bear-dog belonging to Jacof, of an aspect almost as solemn as his master. Our horses had hitherto gone fairly well, but during a short halt that we made to adjust some of the packs a stampede occurred, and in an instant the scene was changed to one of the wildest confusion. Kicking, plunging, colliding against trees, and dashing wildly in all directions, it was not long before the horses succeeded in disembarrassing themselves of their loads, and

the ground presented the appearance of having been recently passed by a beaten army in full retreat. The horseboys, more than half drunk, pursued the fugitives, cursing volubly in Russian and Kamschatdale; while we, to whom these little unpleasantnesses of packhorse travel had not even the merit of novelty, lit our pipes resignedly and proceeded to gather up the fragments. It was a full hour ere we were again *en route.* These incidents, "tedious as a twice-told tale," and trying alike to the temper and the baggage, recurred again and again. We progressed, as it were, by a series of stampedes, and our horseboys became almost as erratic in their locomotion as their charges. At this rate of advance our journey's end seemed distant indeed. We pressed on, however, as well as we could, and crossed a small plain from which the base of the Avatchinska group of volcanoes was visible to our right. Their summits were hidden in thick mist, and the weather, which had hitherto been fine, now looked most threatening. Arriving at a small stream, Vodki and his two companions halted, and declaring that there was no water farther on, proceeded to unload the horses. This we soon put a stop to, and telling them that, water or no water, we had no intention whatever of camping for another hour or more, we resumed our journey. The scenery now changed, and we entered a gloomy birch-forest with much thick undergrowth. This was in places six or eight feet, or more, in height, and was composed of coarse grass and giant umbelliferæ, with an occasional blue monkshood, varied in the more open parts with large patches of yellowing bracken. Before long we reached another stream, and were thus enabled to prove the truth of our surmises; but it was not till some time later that we finally halted for the night, the horseboys being by this time scarcely in a condition to proceed farther. We were glad to pitch camp and get a rest, as it had already begun to rain. Before turning in we succeeded in finding Vodki's brandy bottle, but it was perfectly empty. The man had disposed of a pint or more of raw spirit since leaving the settlement!

In this kind of travel movement is not very rapid for the first day or two until every one has shaken down to his work, and on the following morning we were nearly three hours in getting breakfast and striking camp. The horseboys were depressed and inclined to be penitent. If, like an old Kafir servant of mine, they estimated the amount of enjoyment of the previous night by the strength of the morning's headache, they ought, to all appearances, to have been well pleased. We had decided to leave Avatcha on our left, and to make for Stari-ostrog,[1] a small village a little higher up the Avatcha River, and forty versts from Petropaulovsky. We passed through the same monotonous forests of birch as before,

[1] The *ostrogs*, or small forts, were erected by the Russians in bygone days as a protection against the natives at the time of the first settlement of the country. The name now alone remains, all traces of fortification having long since disappeared.

which, like those of other northern countries, seemed singularly devoid of animal life. An occasional coal-tit, which from its note and habits appeared identical with the tame little freebooter of our own gardens, or the tapping of a woodpecker,[1] alone broke the almost death-like stillness which reigned around. We had struck a well-marked trail, and progressed in Indian file, the packhorses (tied in fours, each to the tail of the one in front) leading the way, and relieving the monotony by an occasional breakdown or a stampede. Almost all these ponies are strong and well shaped, but from the ill-treatment they receive at the hands of their masters, have learned to bite, kick, and shy on all occasions, together with other accomplishments of like nature which were somewhat apt to disturb our equilibrium. There was but one saddle among us, and the "Kamschatkan Peats," as we named the combination of pillow and pack-saddle which we used as a substitute, though comfortable enough when we ambled along quietly, were apt to become slightly insecure when, as a naval member of our party expressed it, we "made bad weather."

The path between Stari-ostrog and Petropaulovsky appears to be tolerably well-travelled, to judge from the frequency with which we came across the marks of old camping-grounds, but we met with no one on our way. It was afternoon when we reached the river, and crossing a small affluent, found ourselves opposite the village. We had ridden on ahead, and were hailing the natives for canoes in which to cross, when a tremendous clattering in our rear caused us to turn, and we beheld the cook's horse advancing in full stampede, but minus his rider. Beneath his belly a large canteen swung violently from side to side, half-open, and discharging a shower of tin cups, knives, forks, plates, tea and coffee kettles, and other articles of like nature in all directions. We retraced our steps sadly, picking up such articles as we could find, but among them was no trace of Cook. Presently we came upon that imperturbable gentleman, placidly smoking a cigarette. He explained the matter in a few words:—"Very sorry, sir, but" (indicating the horse) "I've never been shipmates along o' one of them things before!"

We crossed the river in two dug-out canoes lashed together. These boats are as a rule small, and without attempt at elegance in shape, such as one sees in Borneo and other parts of the Malay Archipelago. Where the rivers are shallow, long poles are used to propel them, and indeed the natives always seem to prefer this implement to the paddle, wherever its use is possible. The Avatcha River is here about eighty yards in breadth; shallow for the most part, but with a centre channel about seven feet deep. It appeared to be teeming with salmon. Stari-ostrog, situated on the right bank, consists of ten huts and a large number of fish-drying sheds. The long Kamschatkan winters, during which it

[1] *Picus tridactylus*, considered as a distinct species (*P. albidior*) by Dr. Stejneger.

is difficult to procure food of any kind, and the consequent necessity of fish as an article of diet for almost every living creature in the settlements—the cows and horses even not excepted—create a need for a very large number of these buildings; and the consequence is that, to the eye of the new-comer, the villages appear very greatly larger than they really are. Scanty as the population of this wild country is, the amount of salmon annually consumed is absolutely enormous. At this little village, for instance, we were told that, during the season, 20,000 fish would be no uncommon catch for a single day! Here, however, owing to there being no other settlements higher up the river, they are permitted to stake the stream right across from bank to bank, and the number of fish thus obtained may probably be in excess of that in other places. The labour expended in gathering so abundant a harvest is, of course, very considerable, and during the season the inhabitants work day and night to get in a sufficient supply for the winter.

We were greeted by the headman and brought to his house, where we were regaled with milk, sour cream, coarse rye bread, and sour bilberries. The houses of the better class of natives are almost all log-built. They are unpainted, and the rooms, unlike those usually seen in the northern parts of Scandinavia, are generally small. Of these there are usually two —rarely or never more than four; and in most of the huts in the larger villages the floors are boarded. As is the case among other northern nations, the houses are in many places raised above the ground, either by means of a foundation of stone, or, like a haystack, by low wooden pillars at the corners. The hut is warmed by a huge brick or stone stove, generally built between the two rooms. It is supplied with fuel only once daily, and the heat thrown out is so great, and the atmosphere, owing to the hermetically-closed windows, so stuffy, as to be well-nigh insupportable to a European. The furniture is simple. A few chairs, an abundance of cockroaches and other less mentionable insects, a rough deal table, and a tawdry gilt *eikon* of the Russian Church—a sort of fetich without which no peasant would feel comfortable—is usually a tolerably full inventory. A house of this kind is, of course, only owned by what may be termed the upper classes—those of Russian blood who have migrated from Siberia. The dwellings of the half-breed Kamschatdales, which I shall presently have occasion to describe, are very different.

While we were superintending the passage of our horses across the river—a somewhat lengthy operation, owing to the depth of the stream necessitating the off-loading of the baggage—we were astonished at being greeted in very fair English by a long, lean cornstalk of a lad, who expressed his pleasure at meeting travellers of that nationality in his own country. He was evidently possessed of no little love of travel himself, and told us that he had been for a year as cabin-boy on board an English

steamer trading between China and Japan. His advent was opportune, as through him we were able to make arrangements for three more horses, which we were to pick up on the road the following day. For these, which were to accompany us until we reached the head-waters of the Kamschatka River, a distance of about three hundred versts, we were to pay seven roubles each. The Ispravnik and the King had not done badly; their charge had been exactly quadruple!

In company with our English-speaking friend we went to inspect the fish. These were drying in open sheds, much as tobacco is dried in the Southern States of America. Split in half as far as the tail, cleaned, washed, and deprived of its head, the salmon is hung across a stick in company with fifty or sixty others. These sticks are then placed a few inches apart, with their ends resting upon other poles which run from end to end of the shed. The fish are thus freely exposed to the air, but protected from the sun. They are not hung lower than about eight feet from the ground, on account of the dogs, who are occasionally seen gazing at them with longing eyes and watering mouths, experiencing the tortures of Tantalus. Excepting for a sledge-dog, however, the sight is not a tempting one. Swarming with countless millions of maggots, which distil in a gentle but unceasing rain upon the ground beneath, whitening it as with a shower of powdery snow, the fish seem to be so rapidly disappearing that one wonders how any remain till winter. Another sense beside that of sight causes the same reflection, but neither the dogs nor their masters are particular as to these little matters. The latter, indeed, prefer their fish in an advanced stage of decomposition, and have the same method of preparing it as I have seen in some parts of Lapland. The salmon are buried for three or four months in pits, and any difficulty in extracting them at the end of that time is overcome by means of a ladle!

It was late in the afternoon before we were again *en route*, our course lying north-west through the valley of the river. This bears in many places distinct evidence of the latter having been, at some period, of very much larger size. We ascended the bluff of the old left bank, and rode through an interminable forest of birch-trees, which were here larger than I have ever seen them elsewhere. Many of them must have been at least a hundred feet in height.

We began the next day with a more than usually exasperating stampede. These occurrences, though common enough during the earlier part of our journey, became less and less frequent as we advanced, and before we reached our destination had altogether ceased to trouble us. We did not regret it, for no amount of repetition accustomed us to them, and it needed an almost superhuman patience to take them philosophically. We were now passing along a fairly well-marked trail, and, a short time after we were once more in marching order, we met four miserably

ragged and dirty natives who seemed to be moving house. They were mounted, and drove before them a couple of cows. We inquired if they had any furs for sale or barter, but they were unable to understand us, and thinking we wanted milk, produced a few drops of that liquid tied up in a small piece of the intestines of a recently-killed bear. This delicacy, however, we declined with thanks. A little later we came upon the new addition to our cavalcade for which we had arranged at Stari-ostrog—three ponies, each of which was accompanied by her foal. We formed now a party of some size, composed of eleven men and twenty-six horses, and the playful gambols of the little foals, though somewhat provocative of stampedes, served to counteract the gloom of the monotonous birch-forests through which we passed. The height of the undergrowth of grass and other coarse herbage was enormous; such, indeed, as I could not have conceived possible for annuals to attain in these northern climes. In many places it was two or three feet above our heads as we rode. There was but little game to be looked for, or at least to be easily obtained, among such rank vegetation, and we pressed on without delay, as our rate of progress since leaving Petropaulovsky had been anything but satisfactory.

Our new horseboy, though in other ways a great improvement on his fellows, was unluckily a somewhat sleepy individual, and signalised himself during the course of the afternoon by causing the most disastrous stampede we had yet experienced. The packhorses, as I have already mentioned, were lashed together in strings of four, the leading animal carrying a horseboy in addition to his load. The last string was in charge of our new man, who, overcome by the "damnable iteration" of a birch-forest, fell asleep and tumbled off his horse. In his fall, unfortunately, he dislodged some of the loose packs, which swinging under the horse's belly, started it off at full speed. Dashing wildly forward, the frightened animals caught the others in rear, upsetting Vodki and communicating the stampede to the whole line. We were at the time in thick forest, and plunging into this, our cavalcade rapidly disappeared in all directions, various ominous crackings alone revealing their line of progress. When separate individuals of a string try to pass on different sides of the same tree a startling effect is very often produced, but the old and experienced packhorse knows that better results may be obtained by the navigation of a three-foot passage between two birches. We found Ivan supporting his head in both hands, and proceeded to administer a lecture and surgical relief. Vodki, by the really masterly and exhaustive manner in which he was exhibiting the expletive richness of the Russian language, was evidently not in a condition to require attention. There is always, happily, a comical side to these affairs, which makes the traveller regard "the most disastrous chances" to his baggage with tolerable equanimity.

We pitched camp about twelve or fifteen miles from Narchiki, a little village that in bygone days was one of the palisaded *ostrogs* of the Russians; and though close to a pretty and most likely-looking stream, we were unable to catch any fish for supper, for the first and only time during our ride to the river.

In most bush countries it is the hunter's rule to see that the fire is extinguished, or at least rendered harmless, before breaking camp. In Kamschatka the greatest care is taken about this, as bush-fires invariably cause the sables to desert the neighbourhood for many miles around. As my readers are perhaps aware, the fur of this animal is the most valuable export of the country, and a very large proportion of the inhabitants are employed for the greater part of the year in sable-hunting only. The price obtained by the hunter for the skins varies very much if these be sold separately. But generally the season's catch is disposed of *en masse*, and a fixed price paid per head, whether good, bad, or indifferent. By far the greater part of the trade lies in the hands of the individual I have alluded to under his title of the King of Kamschatka. That he was by no means beloved of his subjects was abundantly evident, but his power was so great that but few were able, even if they dared, to shake off the hold he had upon them. As the owner of what was, practically, the only store in Petropaulovsky, the natives became easily indebted to him, their account for goods supplied being invariably in excess of the amount allowed for the furs brought for disposal. They are thus, we were informed, obliged to bring the catch of the following season to the same market, where, owing to the absence of competition, the prices are by no means high. If the corresponding profit upon the flour, cloth, and other goods sold be taken into consideration, it will be seen that, with a little capital and an elastic conscience, a fur-trader in Kamschatka ought not to do badly.

In St. Petersburg the price of a single sable skin ranges from £2 to £25. In Kamschatka the wretched peasant, living upon half rotten fish and exposed to the rigours of a climate which, in its severity, surpasses that of almost every inhabited region of the world, receives, nominally, an average of sixteen roubles[1] per skin. In reality, as I have stated, he has to take out this value in goods. He is wise if he does so, and can keep clear of the brandy, which, in spite of the law which forbids its sale anywhere but in Petropaulovsky, has proved the ruin of so many of his countrymen.

The price of other skins is generally settled individually. A fairly good bear's skin fetches about three or four roubles. It is only the very finest and largest that will bring as much as seven roubles. A river otter, if in good condition, is valued at the latter price, but this

[1] The Russian paper rouble is worth nearly half-a-crown; the silver rouble about three shillings and sixpence.

animal does not exist in any numbers in the peninsula. The most valuable skin of all is that of the sea-otter (*Enhydra lutris*), which is becoming rarer year by year. A good pelt of this animal will bring even the native hunter as much as a hundred roubles, while in the European market a perfect one has been known to realise £120 !

On the morning of August 22d we came for the first time to a *tûndra* of considerable size. After the gloom of the birch-forest these vast stretches of level ground have a most exhilarating effect. The feeling of oppressive stillness which but an hour or two before seemed to weigh upon us like a nightmare, disappeared as if by magic, and pushing our horses into an easy canter, we pursued our way with a sense of freedom that is rarely or never felt except by those who ride where fancy leads them over the level surface of an uncultivated plain. The melancholy, the *niedergeschlagenheit* of Kamschatka, of which Kittlitz gives such a long description in his account of the country, I confess I never felt; the converse—a purely physical feeling of delight in mere existence—we often experienced, and a good rollicking drinking song and a loose rein seemed a necessity in order to let off our stock of superabundant spirits. Long wastes of almost orange-coloured grass stretched away nearly to the horizon, only broken here and there by a still pool, or flecked by little tufts of snowy cotton-grass. Our course—for we were on what a native would doubtless call the "high road" to Narchiki—was marked out by long poles, some fifteen or twenty feet in height, which in winter serve to guide the traveller over the dreary wastes of snow. In the forest another method is adopted. The trees are "blazed" by a vertical slit cut in the bark by the hunter's axe. This gapes with the growth of the tree and forms a conspicuous oval mark, ten or twelve feet above the ground—a height which forcibly impresses upon the mind the depth of the winter snow. Other evidences which told us that the warm sun beneath which we were travelling was an affair of days, not weeks, were close at hand, for the snow lay in thick patches at the base of the low range of hills bounding the plain,—the finger-marks, as it were, of the icy grip of winter.

We reached Narchiki early in the afternoon, and were greeted by the prolonged howls of innumerable dogs. Though the village boasts of only six huts, there are over one hundred and fifty of these animals to pull the sledges of the inhabitants by day, and to endeavour, in combination with other equally hungry, though happily smaller creatures, to disturb their rest by night. The sledge-dog, indeed, appears to do without sleep, and anything more hideous than their nocturnal concerts it would be difficult to imagine. Fortunately an open-air life and hard work are not generally compatible with insomnia, and after a few nights the traveller would be more apt to miss his music than to abuse it.

Narchiki is placed on a little branch of the Avatcha River, which is here not more than eighteen inches deep. Standing upon its banks we began for the first time dimly to realise the vast numbers of fish which must annually visit the country, and which may be said literally to choke its rivers. Hundreds were in sight, absolutely touching one another; and as we crossed the river our horses nearly stepped upon them. Their back fins were visible as far as we could see the stream, and aground and gasping in the shallows, and lying dead or dying upon the banks, were hundreds more. The odour from the decaying fish was distinctly perceptible at a distance of a couple of hundred yards or more. In weight these salmon varied from seven to fifteen and even twenty pounds. They were for the most part foul fish,—blotchy with patches of red and white, and of the kind known by the Russians as the Garbusa;[1] but others in fair condition were to be found, and with a little trouble I was able to pull out three good ten-pound fish in as many minutes with a gaff. Any other method of fishing would have been useless. It would have been nearly impossible to make a cast without foul-hooking a fish, and nine-tenths, or more of them, were in an uneatable condition. Had we wished to do so, we could have pulled these latter out of the water with the gaff until we were tired.

While we were engaged in procuring our supper by this simple method, a native came down and watched our proceedings. Taking a spear he went a little way up stream, and soon returned with half a dozen fish which were a great improvement upon our own selection,—for I can apply no better term to it. They were of three species:—one a long charr-like fish, of a brilliant salmon-colour beneath, but with the back dark green, and with a most peculiar lower jaw. This closes into a sort of groove or socket in front of the upper jaw, producing a very extraordinary under-hung appearance. Its native name is Gultsi.[2] The other fish were a grayling (*Thymallus*) somewhat like our own, but not so deep; and a species of trout with obsolete spots.

The vast quantities of salmon which fill the rivers of Kamschatka in the manner I have described cease in course of time to astonish the traveller, who goes down to hook his supper out of the stream, as naturally as he gathers the firewood to boil his kettle. But to a newcomer the sight is an astounding one. The millions of fish that are caught, and form the food throughout the year of almost every living creature in the country, are, however, as nothing compared with the countless myriads that perish naturally. I had at first supposed that the rotting fish that lined the banks, and here and there lay piled in little heaps together, were the victims of some unexpected and fatal epidemic. But I soon learnt that there was nothing unusual in it, and

[1] *Salmo proteus* of Pallas.

[2] *Salmo callaris*, Pall.

that it was an annual phenomenon of as constant occurrence as the breaking up of the ice.

We entered one of the huts in order to eat our lunch and rest the horses before proceeding on our journey. It was combined with the stable, through which one had to pass before entering the only habitable room. This was tolerably clean, and boasted of a couple of chairs and a table; but we had already got beyond the region of glass, and the windows were made of strips of bear-gut sewn together. They admitted enough light, however, to show us the strange mixture of ornament that hung upon the walls. In the corner was the usual tawdry *eikon*, and facing it, a long array of clippings from the "New York Police News," full of the choicest horrors of battle, murder, and sudden death! Amid these lively surroundings we consumed our sour milk and bilberries, and bargained for some potatoes and turnips, which appeared to be grown here in some abundance. Much, no doubt, might be done in the way of agriculture in many parts of the country were it not that the fish-harvest and hunting take up so much of the peasants' time. Of their success in the latter line we had evidence in a fine pair of horns of the Argali or Bighorn,[1] which lay outside the hut, and had only recently been shot. These animals, we were told, are not easily obtained at this season, and do not exist in any great numbers in the neighbourhood; but in the winter they descend to the lower spurs of the mountains, and are more easily brought to bag. We much desired to obtain a head and skeleton of this sheep, but our limited time, and Afanasi's statement that we should be able to get them on the sea-coast about sixty miles to the eastward of Avatcha Bay, eventually decided us on relinquishing the idea of hunting them in this neighbourhood. We were pleased, however, to be able to prove their existence in the interior, which has by some previous writers been doubted.

We pursued our journey in a steady downpour of rain, our track leading through coarse grass and other annual vegetation so thick that from the back of a horse it was utterly impossible to see any trace whatever of the way. Our two hunters had donned their waterproofs,—long coats made from the intestine of the seal, carefully sewn together with sinew. These garments are tolerably strong in a thornless country, and though not ornamental, are as light as a feather, and most effectual in keeping out rain. We passed to the south of some hot springs, about two versts distant from the village, the water of which was said to be of such a temperature that the hand could not be borne in it. Of these, as in Japan, there are many throughout the country, and they are greatly used for bathing purposes. At Malka, between Narchiki and Gunal, there is a spring of sulphurous water of great heat, in close proximity to another which is said even during the summer to stand steadily at

[1] *Ovis nivicola*, Eschscholtz.

the freezing point. We were, however, unable to visit it, and turned northward, passing across a *tûndra* nine miles in length, and uninteresting enough in such weather. We had the pleasure, however, of seeing Vodki deposited in five feet of water in consequence of having fallen asleep upon his horse, but it must be confessed that our amusement was somewhat damped by discovering that our own personal baggage had suffered a like immersion.

BIRCH-BARK BOX.

We camped once more in a birch-wood, and but for the proximity of these trees we should have had no little difficulty in making a fire, as the forest was dripping wet. The birch is to the inhabitant of northern regions very much what the bamboo is to the native of the south. It is his general-utility tree, and without it he would indeed be badly off. The stem is used in the construction of the sledges, and the inner bark is said to be cut green and used for food. From the knotty parts of the wood good spoons are made, while the multifarious uses to which the smooth and pliant bark is adapted in the construction of dishes, cups, and vessels of all kinds are so well known by every northern traveller as to need no description. The boxes are often much ornamented with stamped designs, and are occasionally painted, or rather dyed, with blue and white; while the oval shape so commonly seen in Scandinavia is not infrequent. To the European traveller the tree is equally useful. Cups and other articles can be made with the greatest readiness; fires can be lighted in the wettest weather with the thin inflammable bark, and the inner layers of the latter form excellent writing-paper, the characters on which no quantity of rain will injure or render illegible.

The scenery some miles north of Narchiki begins to alter in character, an alteration that is distinctly for the better. The monotony of the birch-forests is relieved from time to time by openings where the dense undergrowth is supplanted by little rocky knolls covered with bright mosses. The ground becomes more broken and the open spaces larger, and before long the country approximates closely in character to

that which, in Scandinavia, would be designated the lower fjells. We had hitherto shot but little game, but here ptarmigan were abundant,[1] and we were able with ease to secure as many as were necessary for the table. Farther on, we came to a small stream, which was, most probably, an affluent of the Great Bolcheresk River, which debouches into the Okhotsk Sea on the western coast of the peninsula. It was crowded with dead and dying fish; and the remnants of some recently devoured ones upon the bank, together with fresh spoor of bear around them, told us that, in all probability, Bruin was not far off.

I had never before seen the tracks of this animal in such abundance, but farther north it was common enough to see the river-banks as much trampled as if a herd of cattle had been driven down to water. The bears at this season of the year live entirely upon salmon. Later, when this diet fails them, they take to berries, upon which they live until the time of hybernation, which is generally when the first heavy snow falls, at or about the beginning of the month of October. If in poor condition the bear is said not to hybernate till much later. According to the natives, the animals are tolerably fat on emerging from their dens, and support themselves on grass until the arrival of the fish.

Our road, some time after leaving Narchiki, had led to the west, in order to avoid a range of mountains of no great height which trends in a south-easterly direction from the village of Gunal. We now turned north once more, and entered a beautiful valley. To the east lay the range we had been circumventing, rising to a height of about 4000 feet, its large patches of snow glittering in the bright sun. The outline of these mountains was most picturesque; and, as we advanced, we opened out a group of *aiguilles* so jagged as to resemble a mass of inverted icicles. The valley was scantily clothed with juniper-bushes and dwarf birches, and early autumn had already touched the landscape here and there with patches of bright yellow. As we rode over the ruddy ground, which with its brilliant parti-coloured moss is so characteristic a feature of northern landscapes, we put up several coveys of ptarmigan; and on the outskirts of a small wood we obtained our first capercailzie, a young bird which, like many other birds of this region, was characterised by the presence of a good deal of white in the plumage. The day was glorious, and so hot that we rode in our shirt-sleeves; our enjoyment only marred by the almost constant stumbling of our horses over the stumps and roots of the trees. The Kamschatkan ponies, which are generally iron-gray in colour, and stand about thirteen hands, are well shaped and have a good barrel, and are

[1] Probably a sub-species of, or perhaps identical with, the Dal-ryper or Willow Grouse of Scandinavia (*Lagopus albus*). I unfortunately omitted to preserve specimens of this bird until it was too late, and we did not shoot any after we had once begun the river journey.

IN THE GUNAL VALLEY—A STAMPEDE.

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capable of a considerable amount of work. Owing, however, to the rough usage to which they are subjected, they are determined kickers, and obstinate to a degree; and it is most difficult to make them lead the way, or if behind, to prevent them from following in the exact track of those in front. No food is carried for them, and not content with the nightly meal they obtain when picketed, they one and all feed in snatches as they go along, an annoying habit of which it was impossible to break them. Their ordinary load is from six to seven pood.[1]

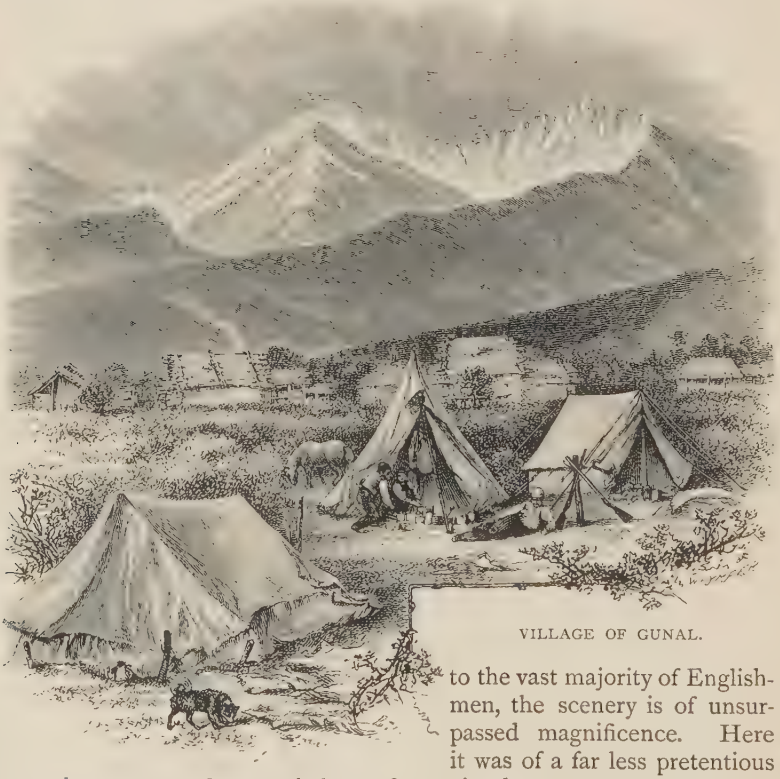
It was not long before the presence of some large poplars ahead, combined with certain whiffs of decaying fish, to which no description can do justice, warned us that we were in the neighbourhood of a river; and the howls of sledge-dogs presently greeted us as we arrived at the settlement of Gunal. We found some of the inhabitants engaged in making a bridge,—really a very creditable affair, as the river here is about twenty-five yards broad, with a channel some six feet or more in depth. Above the village this stream—the Bolchaia-reka, or Great Bolcheresk River—splits into two or three branches, which reunite a quarter of a mile lower, after having received two rapid, but shallow little affluents from the west.

Gunal is a most picturesquely-situated little hamlet of about twenty huts, and has a population of ninety-four souls who are all, without exception, the descendants of Russians who established themselves here with Kamschatdale wives in the last century. The latter people are now rare as a pure race, excepting upon the western side of the peninsula. The Gunalians are all Christians, and have built themselves a church,—a small log-cabin surmounted with a cross. Within the same enclosure, but separate, just as in Northern Sweden, is a little belfry with a single bell, time-worn and defaced. Owing to its inaccessibility, we were unable to read the inscription with which it was adorned. The church is parsonless. There are but three popes for the whole of the vast district lying between Petropaulovsky and the mouth of the Kamschatka River. Here the nearest is at Melcova, a hundred versts or more away; and once in every four months he comes in, marries and buries such of his parishioners as need it, holds service, and departs. He has not much to do, for the people are both apathetic and long-lived. In the little churchyard hard by there were scarcely twenty graves. They were marked by Russian crosses with a little bronze or brass crucifix roughly nailed on, but there were no inscriptions of any kind.

We pitched our camp at the edge of what, in England, would have been the village-green,—a little two-acre patch of real, short English turf, at a bend in the river. It was a lovely scene. In Kamschatka

[1] A pood is equal to 36 lbs. English.

all the romance of life appears to have left it and gone out into its surroundings. But, however sordid and material the lives of those whose whole existence is one constant struggle against such a climate must be, there is no doubt that nature is here as prodigal of her beauty as she is in any part of the known world. Farther north, in the neighbourhood of the huge volcanoes whose very names are unknown



VILLAGE OF GUNAL.

to the vast majority of Englishmen, the scenery is of unsurpassed magnificence. Here it was of a far less pretentious type, but possessed, nevertheless, of a quiet beauty so perfect in its kind that the most fastidious of critics would have sought no alteration. Below our camp the river clattered between its banks of yellowing birches towards some snow-capped mountains that distance had painted a deep violet. The village, gray, battered and weather-worn, as are all these northern hamlets, nestled at the foot of the three peculiar peaks of the eastern range of the valley. Not a human being was to be seen, and the smoke of our evening camp-fire rose like a straight blue pillar into a golden sky. Around us was a stillness that

could be felt,—the wondrous silence of the North; and on the summit of the little cross above the church a crow sat motionless in the evening sun,—a speck of steely blue against the snow beyond.

Gunal, with its enormous stores of salmon, seemed like all these Kamschatkan villages, a place of considerable size. A nearer acquaintance, however, soon dispelled the illusion, and we noticed that a large proportion of balagans seemed to be used as storehouses rather than dwellings. These buildings, which differ from the fish-sheds only in having a living-room at the top, and being consequently rather more solidly constructed, are rudely made of white poplar or birch trunks, pines being comparatively unknown in this part of the country. There are rarely more than two—at most three—tiers of fish drying beneath, for the sledge-dog is an active and ever-hungry animal, and six feet would be a dangerous height at which to suspend a salmon. The roof is high-pitched, and the thatch secured by means of light poles tied transversely across it. The entrance, a low door in the gable, is reached by a sort of ladder specially contrived for the humiliation of the unwary. It is merely a notched pole, placed loosely against the building, and not secured in any way; and the incautious European attempting the ascent is somewhat astonished to find the pole rapidly revolving, leaving him clinging back downwards and discomfited. This simple arrangement, if capable of being put in action at will, might possibly be of considerable utility to those who suffer from a plethora of callers in our own country. I commend the suggestion to the more progressive of my readers.

The inhabitants of the village had already begun to get in and tie up their dogs in anticipation of the coming winter. There were over two hundred of them here, and we had ample opportunity of studying their habits. Most of them are white, with black heads, or entirely of a brown-black, and their general aspect, owing to the sharp muzzle and prick ears, is decidedly wolf-like,—an appearance that one is familiar with from the sketches of North American travellers. The only food they are provided with by their masters is salmon of the hump-backed kind—the Garbusa; but during the summer, as I have already said, they pick up game, eggs, and birds in their wanderings about the country. They are usually inspanned in teams of eight or ten, but where the sledges are heavy or the roads bad, double that number, or even more, are occasionally used. When the snow is hard and even, they will draw a weight of 360 lbs. a distance of five-and-thirty or forty miles with ease in a day's work; and with an unloaded sledge with a single occupant, a pace of eight versts an hour can be kept up for a considerable time. On the road they are given one-third of a fish twice during the day, and a fish and a half at night, which they wash down with a few gulps of snow. The dogs are castrated when puppies,

and have their tails cut at the end of the first year. Each has a name, which he answers to when he is driven in the sledge just in the same way as a Cape ox in a waggon team, for no whips are used. If chastisement be necessary, the driver throws his stick at the delinquent, or pounds the unfortunate creature with any stone that comes handy. There are many ways of tethering these animals, all having in view the one object of keeping them apart, as, excepting upon the road, they seize every opportunity of fighting. One method—the one that

BALAGAN AND SLEDGE DOGS.

obtrudes itself most upon the traveller's notice—is by making a large tripod of poles, and tying a dog at the bottom of each; and in many villages, owing to the large number of dogs which have to be kept, these tripods form a characteristic feature.

We had many reasons to induce us to take a couple of days' rest at Gunal. Louis was suffering from a chill consequent on the wetting of the previous day; one of us had a slight touch of fever caught some years before in Africa; and at the camp kitchen Cook sat a prisoner as a surgical patient, imperturbably smoking cigarettes and picking up Russian from Afanasi. A slight injury to the ankle, combined with mosquito bites and many hours of riding, had produced an inflamed leg,—a rather awkward accident at this juncture, as we wished to press on as rapidly as we could. In addition, the camp gear needed drying

after Vodki's exploit, and as there were said to be plenty of bear in the neighbourhood, we settled to remain.

The following day was gloriously hot, and before long the camp presented the appearance of a washerwoman's drying-ground. The sun heat was, indeed, so great that we gladly took refuge in the tent, and at noon the mercury stood at nearly 80° Fahr. in the shade. These hot days are not unusual at the end of August, and constitute a sort of Indian summer, which, as in Lapland, is but the immediate precursor of an autumn so short as hardly to be dignified by the name of a season. At sunset the temperature fell rapidly, and at night it was so cold that we were glad of four blankets, the thermometer being at or about freezing point. A range of something like fifty degrees in a single day is not often seen, but weather of an almost exactly similar kind is met with during winter on the high table-lands of Southern Africa. The Kamschatkan autumn cannot always be relied on, for, from what we could gather from the natives, it is not unfrequently attended with a very heavy rainfall, and occasionally with much wind.

We had hoped to find Bighorn in the mountains in the neighbourhood, but, greatly to our disappointment, the people of the village told us that these magnificent sheep never come down to the lower spurs of the range before winter, and that it was useless to go after them. This was the second time we had to give up the idea of hunting them. We were, however, more fortunate with the bears, and succeeded in bringing one to bag the first day after our arrival.

CHAPTER VI.

KAMSCHATKA (*continued*).

We left Gunal on the morning of August 27th. Our two days' rest had done us all good, and Cook's disabled leg, which had at one time caused us some anxiety, was sufficiently well to risk going on. The injured member had not prevented his superintending the making of some most excellent bilberry jam. We had killed a fatted calf, of which, after much haggling, we had become the possessors for the sum of twelve roubles; and the carcase had been duly converted into veal and a good supply of stock. From our saddles hung several couple of mallard, and the larder on the whole was in as satisfactory a condition as it well could be. The dawn revealed a heavy mist, which rendered even near objects distinguishable with difficulty, but it lifted gradually under the rays of a bright sun, and before we were well off, and had turned to catch the last glimpse of the beautiful scenery around our late camp, the day had become all that the most *exigeant* of travellers could desire. Under hot suns like these the signs of autumn appear with wonderful rapidity, and we noticed that the tints were distinctly brighter than they had been but three days before.

We passed two of the level seas of marshy ground that for lack of a better name I have hitherto called *túndras*. The term is, strictly speaking, applied only to the vast stretches of ground of this nature that are so wearisome to Siberian travellers. Here, however, the only difference lies in the size, and as we have no corresponding English word, I have preferred to retain the Russian name. The thick forests of birch were no longer to be seen, and the country, though still wooded, was more open, large clearings being not infrequent. The familiar monkshood, too, whose spikes of flower are in Kamschatka snowy white, as well as of the ordinary shade of violet that our English gardens exhibit, had almost entirely disappeared, and we saw but little more of it during the rest of our journey. The number of bilberries was enormous, but the

cranberry was much less abundant, and its berries as yet were hardly ripe.

Riding quietly along in advance of our party, we suddenly came almost upon the top of two fine bears, with a young cub between them. We were unfortunately without our rifles at the time, and before we could get them the animals had made off, greatly to our disgust; and though we had spent some time in following them up, we did not succeed in getting sight of them again. They had doubtless got scent of us, and were far away. Bears are always much more disturbed by getting wind of human beings than by any noise the latter make, or

BELFRY AT GUNAL.

even by their appearance; and the hunter, although his movements are by no means those of the stealthy-footed Malay, knows that unless he works to windward his trouble is in vain. The number of these creatures in Kamschatka must be enormous. Afanasi told us that there are hunters who have killed over four hundred in their lifetime, and we heard that at a little hamlet on the Bolcheresk River more than ninety had been shot and trapped during the summer. July, August, and September are the best months for them, as they haunt the river-banks at that season for the fish, and are in most excellent condition.

The heat at noon was nearly as great as it had been on the previous day, and the business of supplying our larder with ptarmigan for the many mouths we had to feed involved a very considerable amount of exertion; and, as we ploughed through the soft moss, sinking up to our knees at every step, "larding the lean earth as we walked along," it was difficult to realise that at nightfall we should be back again in an Arctic climate.

The birds were luckily tolerably abundant, and we had obtained a sufficient number on pitching camp for the night. Capercailzie apparently were rare. We had seen but few, and up to this period had only succeeded in obtaining one, and our game-birds were consequently limited to the Willow Grouse.

The Englishman travelling in Kamschatka who has reached his destination, not by the desert steppes of lonely Siberia, but by way of Ceylon and sweltering Singapore, where almost every bird he sees is unfamiliar to him, cannot fail to be struck, however unobservant he may be, with the resemblance of the avifauna of the new region in which he finds himself to that of his own country. He disturbs a Turnstone or Golden Plover as he lands, perhaps, and notices a familiar-looking wagtail running along the well-trodden paths of the settlement. Overhead, maybe, hovers some bird of prey, which he may recognise as an Osprey or a Hobby; and as he shoots his first grouse, or notes a woodpecker tapping at a tree hard by, he identifies them, or at least thinks he identifies them, with like species he has met with in his own or some Norwegian wood.

In the majority of cases he is right. In others he is, at all events, not far wrong. For, in consequence of the similarity of the fauna which extends over the whole of Europe and Northern Asia, zoologists have been led to group these countries together under the name of the Palæarctic Region, and the species which are common alike to Great Britain and Eastern Siberia are numerous. Kamschatka abounds with birds of wide range with which the European traveller is quite familiar, but its peninsular position has at the same time had a certain influence towards the creation of representative forms, among which those of the Great and Lesser Spotted Woodpecker,[1] the Capercailzie, and the Marsh Tit may especially be instanced. In all these the differences consist for the most part in the greater predominance of white in the plumage, and this tendency to albidism is noticeable, as I have already mentioned, in other animals besides the birds; the dogs and horses likewise showing it in a marked degree.

We wasted some time of the morning of August 28th in tracking a large bear that Afanasi had wounded on the previous evening. He had been hard hit, and marks of blood were plentifully visible as we

[1] *Picus pipra*, the eastern form of our *P. minor*, is found over the greater part of Siberia, and even in Japan. Kamschatkan individuals are noticeable as exhibiting the characteristics of the species in a more marked degree than those of the adjoining continent. In the same way the *P. major* of the peninsula differs from that of Europe, and has recently been raised to specific rank by Dr. Stejneger as *Dendrocopos purus*. It differs "in having the breast and upper abdomen very pure white, the white of the lateral rectrices without, or almost without, dark markings, and possessing a white spot on the outer web of the longest primaries near the tip." The specimens that we obtained in our journey through the country bear out this description except in the last-named particular. Both these woodpeckers were comparatively common in the country round Gunal.

took up the spoor. The vegetation was, however, so thick, and everywhere so overrun with the trail of these animals, that before long we had to give up the search, in spite of the aid of Verglaski. We therefore returned, and striking camp, proceeded up the valley of the Bolcheresk River, as on the previous day. The river here runs due south through a flat plain covered with yellow grass and about three or four miles in width. It is hemmed in by mountains which are at first of no great height, but as the head of the valley is approached the scenery becomes finer. We rode towards it under heavy rain, but before long the weather cleared, and disclosed to view a gloomy gorge

REINDEER RIDING, KAMSCHATKA RIVER.

on our right, about eight miles distant, from which the river evidently debouched. At the same time another valley became apparent, joining in from a north-north-westerly direction, and the stream which flowed through it appeared to have the same source as the Bolcheresk, or at least to rise at no great distance from it. We had got at last to the head waters of the Kamschatka River!

Early in the afternoon we arrived upon its banks, and it was with no little interest that we inspected the river that was to bear us some four or five hundred miles upon its bosom before we reached the sea. It was a little stream barely fifteen yards across, and not more than a foot or eighteen inches in depth. The Bolchaia-reka, which we had just left, had been teeming with fish, but here not one was to be seen, and the disgusting smell of decaying salmon that is in Kamschatka the

almost invariable sign of the proximity of a river, was conspicuous by its absence. In a small grove of trees close by we found two rough log-cabins, which had doubtless been the winter quarters of some sable-hunters. They were deeply sunk in the ground, and by their dilapidated condition, had evidently been built many years ago. We were not sorry to find them, as it was our intention to camp here and try for bear, and at the same time, if possible, to explore the source of the two rivers. To our great disgust, however, the presence of a kettle hanging on a stick, and the yet warm ashes of a camp-fire, spoke in unmistakeable terms of the ground having been so recently disturbed as to render our chance of sport in the immediate neighbourhood but a poor one. We accordingly pushed on, and after riding for a couple of hours, struck the river once more at a most picturesque bend in its course. The ground in the vicinity was covered with fresh bear-tracks, and thinking we could not do better, we once more prepared to camp. At this juncture Vodki appeared, and begged us to try farther on, where the ground was everything that was perfect, and the bears in incalculable multitudes. "Just one verst more, little father." For the first and only time we yielded to his advice, and resumed our march. Verst after verst was passed and still it was "one verst more." Two hours and more elapsed before we began to realise that we had been befooled. To be befooled by Vodki!—the thought was too galling. Not in the best of tempers, we altered our course for the river at once, debating what form of punishment we should adopt. Our trouble, however, was saved us. Vodki, in no better temper than we at his plans having failed, kicked one of the packhorses violently in the belly while unloading it. The effect was excellent. The poor animal, who, like the Pope's mule in Daudet's charming little story, had many an old score to pay off, turned round and bit his aggressor so successfully in the face as to leave him with a portion of his cheek hanging down. Here we interfered to prevent reprisals, and while the conqueror was led off to a patch of the most succulent-looking grass we could find, Vodki retired to his tent to nurse his wound for the next two days.

Accustomed as we had become during the earlier part of our journey to the wonderfully dense growth of the annual herbage, especially in the birch-forests and in the vicinity of the rivers, I do not think we had ever seen it in more rank luxuriance than we found it here. Our camp was pitched on a little eminence two or three hundred yards from the river, but the latter would have been almost unapproachable had it not been for the numerous bear-tracks that led in every direction through the forest of grass. As it was, the vegetation rose three or four feet above our heads, and was in places so thick that we could never be sure that our next footstep would not precipitate

us into one of the hidden streams with which the marshy ground abounded. In such ground shooting is almost impossible, and the only plan is to lie up in concealment on the banks of the river, on the chance of a bear coming out in the neighbourhood to fish.

We spent the remaining two or three hours of daylight in this monotonous and chilling amusement, and rose wet and stiff with cold without any success having attended us. The bears had in all probability deserted this part for some other place where fish were more numerous, and the only recent spoor we saw was that of an otter, an animal that is apparently far from common in the peninsula.

The following morning, since there appeared to be no fish in the river, we put our rods together and tried a fly in Kamschatkan waters for the first time. Paradoxical as it may seem, a river of this kind presents the only condition under which this sport is feasible, at least at this season. With the river choked with foul and dying fish, where every cast would foul-hook a fish that would be uneatable on landing, it is of course an impossibility. Here the stream was free from salmon, but though we hoped to obtain some trout or grayling, it seemed to be equally devoid of these also ; and having spent an hour or two without getting a rise, we returned to camp. We found that one of our party who had been out after capercailzie had been fortunate enough to shoot a sable. The animal had been found by Verglaski, who had chased and treed it, and in spite of its not being, from a hunter's point of view, in full condition, it had been duly added to the bag. Our hunters told us that it was extremely rare to see sable at this time of year. The winter coat had begun to grow, and was, indeed, of tolerable length and quite fast. In spring, although the winter fur may be still on, the pelts are said to be quite useless, as the hair drops out even after the skin has been prepared. The animal measured twenty-seven inches in extreme length ; the tail, which was not furnished with the thick brush so characteristic of the winter skins, seven inches ; and the value of skin in the Petropaulovsky market was estimated by Afanasi at four roubles. The price given for winter sables is, as I have already stated, sixteen roubles.

The sable is always skinned from the tail, to form a bag, and while performing this operation in the approved fashion of the country, we listened to a sermon on sables and sable-hunting from Afanasi. They are, he told us, for the most part of nocturnal habits, and, though they occasionally feed by day, generally spend that period of the twenty-four hours in holes at the roots, or in the trunks of trees. They dislike the presence of man, and are rarely to be found in the neighbourhood of the villages ; their favourite resort being the depths of the forests least frequented by the natives. It is considered that the most inaccessible and least known parts of the country are the best hunting-grounds.

They live on hares, birds of all kinds, and in short, almost any living thing they can kill, but they are also said to eat berries, and even fish. There are, indeed, but few animals, apparently, which do not live on salmon in Kamschatka. They have only one litter during the year, generally in the month of April, and bring forth four or five young at a birth in a nest in the holes of trees. When the hunter is bitten for the first time by one of these animals, the bite is almost invariably followed by severe illness; but on subsequent occasions no ill effects, with the exception possibly of slight inflammation of the wound, are produced.

There are various methods employed in catching sables, but a less number are trapped now than used formerly to be the case. Dogs are almost invariably employed, to run them down in the deep snow or to tree them; and they are also smelt out by these trained animals in their holes at the roots of trees. The great object is to tree the sable if possible. The hunter then surrounds the base of the tree with nets, and either shakes down his quarry or knocks it off the boughs with sticks. If it does not fall into the net it is run down by the dogs, or compelled again to take refuge in a tree. Should the tree be too high for this method to be successful, it is cut down, or the sable is shot; but the hunters generally avoid the use of the gun if possible, as it is apt to spoil the skin.

The hunters usually start on their winter's expedition towards the end of September, if their destination be a distant one. If it be in better known country and closer at hand they wait until the first snows have fallen, and do not leave before the middle of November. They train dogs especially for the purpose, and a good sable dog is one of the most valuable of a Kamschatkan hunter's possessions. A catch of twenty sables in a season is considered exceptionally good. Jacof Ivanovitch and one of our horse-boys, in company with two other hunters, had on the preceding winter tried some new ground on the shores of the Kronotsky Lake, and had been particularly successful. Jacof had only succeeded in killing fifteen, but our horse-boy had bagged no less than forty; and the total number killed by the party was close on one hundred and twenty skins. The Kronotsky Lake, which has never yet been visited by Europeans, lies south of the great group of volcanoes at the mouth of the Kamschatka River, and some sixty miles east of Melcova.[1] It is now completely deserted by the natives, but, as far as we could gather from our hunters, it has remains of ancient lake-dwellings on its shores, with deposits of shells and other objects of like nature resembling the *kjokken-möddings* of Northern Europe which, as far as I am aware, are unknown in the country at the present day.

Of the number of sables killed annually in Kamschatka it is difficult

[1] Both Melcova and the lake are wrongly placed on the Admiralty chart; the former is nearly ninety miles north of its assigned position!

to form an estimate. The greater portion no doubt are exported *viâ* Petropaulovsky, this port draining the large extent of country in the region of the Kamschatka River, but a good many must find their way to Bolcheresk, and some others to Tigil, a settlement in the northern part of the peninsula which has only a difficult communication with the villages on the lower part of the Kamschatka. In Petropaulovsky almost all the skins pass through the hands of the "King of Kam-

SABLE (*Martes zibellina*).

schatka," and the number exported by him for the season of 1882 was over two thousand. The profit on each skin probably averaged at least forty shillings, and it must be allowed that, however gloomy the outlook in Hudson's Bay and elsewhere may be, there is at least one part of the world where the fur-trade is not "played out."

We left camp again on the morning of August 30th, and after two hours' travelling came to the little village of Puschina, if village indeed it can be called. It now appeared that Vodki's plan had been to get us on to this place if possible, partly because he preferred a hut to tent life in wet weather, and partly, according to Afanasi, because he was

afraid of the bears. Puschina consists of three huts only, with the usual proportion of fish-drying sheds, and boasts of a population of fifteen souls. In 1787, according to Lesseps, it was larger than Gunal. The inhabitants appeared dirty and miserable creatures, and were more of the true Kamschatdale type than any others we had yet come across. One or two of the huts or storehouses were raised above the ground on pillars, and much resembled the Norwegian *stabur* in appearance, except that there was a complete absence of carving. It is rare to see any settlement in Kamschatka which is not placed actually on the banks of a river, but Puschina, standing two or three hundred yards away, is one of the exceptions, probably owing to the fact that the banks of the stream are here very low, and the rise of the river during the period of the melting of the snows is often very considerable.

We rested our horses and obtained a draught of fresh milk before resuming our march, for at almost all these settlements cows are kept. The milk is generally very rich, and is one of the few luxuries the country affords the traveller, unless, indeed, the cows should happen to have been feeding on the wild garlic. What effect the diet of half-rotten fish on which the poor animals feed in winter may have, I do not know. We noticed, however, that many of the birds we shot and preserved on the expedition smelt strongly of decaying salmon.

During the land journey the actual number of species of birds we met with was but limited, although individuals of some kinds were sufficiently abundant. The Capercailzie (*Tetrao parvirostris*, Gray), though not unlike the European species with which Scotch and Norwegian sportsmen are familiar, differs from it in several particulars. It is markedly smaller in size, shows a strong tinge of grey on the upper surface, and is especially characterised by the tendency to white in the plumage. The feathers of the wing coverts and those of the prolonged upper and under tail coverts are broadly tipped with this colour, and the general appearance of the bird is very handsome. The forest districts are poor in bird-life; the woodpeckers I have before described, small flocks of buntings (*E. rustica*), bramblings, and two species of the genus *Parus* were almost the only noticeable kinds. One bird, however, which I have not yet mentioned, appeared tolerably common—the sober-coloured, but graceful dark ouzel (*Merula obscura*, Gmel.) I met with it many months later, amid very different surroundings, in the depths of a Bornean jungle. It is migratory in its habits, nesting in Siberia and passing the winter in the Malay Islands.

By the rivers there is more life. Many of the so-called sea-birds haunt the streams for a considerable distance inland, and at Stari-ostrog we found large flocks of a gull closely resembling our own Kittiwake (*Rissa tridactyla*). A graceful tern (*S. longipennis*, Nordm.) was almost equally numerous at the same place, but we did not again meet with it

for some time, and on our return to Petropaulovsky it had already departed for the warmer regions of the south. Corvine birds are abundant wherever there are fish, and large flocks of the common crow (*C. corone*) are always to be found perched on the trees in the vicinity of the rivers, or pecking at the piles of dead fish rotting on the banks. The familiar chatter of a magpie, which differs but slightly from our own bird, is as common a sound in Kamschatka as it is in England, and the rigours of an Arctic winter appear to have had no sobering effect upon his character.[1] Ravens too are here, and by the side of the stream runs the Wood Sandpiper (*T. glareola*), almost the only bird of this genus that we noticed on our journey. The surface of the water is dotted with various species of duck, of which mallard and teal[2] are perhaps the commonest. Like everything else, they too seem to regard the dead salmon as a source of food, for in many of those we shot the crop was full of maggots.

We halted for our mid-day meal on the banks of a little stream a few versts beyond Puschina, and while engaged in discussing our wonted dish of cold grouse a fine eagle flew over us, which we were fortunate enough to secure. It was only winged by the shot, and made such a determined resistance to our efforts to secure it, that we eventually had to give it the contents of another barrel. It proved to be a female Erne (*Haliaëtus albicilla*) in not quite mature plumage, measuring six feet eight inches across the wings. The crop contained the remains of salmon, and the bird smelt so atrociously from its prolonged fish diet, and was so fat, that the operation of skinning it was anything but a pleasant one. It was the first example we had obtained, but we afterwards found the species common towards the lower part of the Kamschatka River. The magnificent Pallas's Eagle (*Thalassaëtus pelagicus*) we did not meet with until we had reached the neighbourhood of the great volcanoes.

While we ate our meal we watched Verglaski, slow-moving and solemn as ever, occupying himself in securing his own dinner. He waded leisurely into the stream, just as a bear would, and stood placidly watching the water for his prey. He was evidently an old hand at the business, and would have sniffed disdainfully at any ordinary kelt. No miserable half-dead Garbusa, such as sledge-dogs are fed on, would have contented him. As a bear-dog, he felt such diet to be beneath him, and, like a true fisherman, looked out for the clean fish. There were not many of them, although the half-rotten corpses on the bank spoke of the numbers of salmon that had at an earlier part of the year

[1] This species is another instance of the tendency to white in the birds of this region. It has the extension of that colour on the wings characteristic of the Central Asian Magpie (*P. leucoptera*, Gould), but even more developed.

[2] The Teal were of two species—*Q. crecca*, and another, of which we did not preserve any specimens. It is, I believe, *Q. falcata* of Pallas.

frequented the stream. I cannot hope to convey to my readers any idea of the enormous multitudes that yearly visit the rivers of Kamschatka. Krasheninikov, writing more than one hundred years ago, says, "The fish come from the sea in such numbers that they stop the course of the rivers, and cause them to overflow the banks; and when the waters fall there remains a surprising quantity of dead fish upon the shore, which produces an intolerable stink; and at this time the bears and dogs catch more fish with their paws than people do at other places with their nets."[1] We had no opportunity of seeing the advent of the salmon, owing to the lateness of our visit; and the death of the fish is of course not due to the subsidence of the water, as he seems to imply. But that the rest of the statement is devoid of exaggeration we had abundant opportunities of proving. None of us, unfortunately, were ichthyologists, and the rapidity with which we were obliged to travel through the country, combined with difficulties of transport and the want of spirit and receptacles, prevented our preserving specimens. In the following paragraphs I have embodied my notes upon the salmon of Kamschatka with the statements we obtained from our hunters.

Every year the various kinds of salmon arrive at the mouths of the Kamschatkan rivers with surprising regularity. The date of the advent of these different species extends from May to mid-August; but each has its own time of arrival, which, from its constancy, appears to be more or less independent of seasonal influences. A few fish apparently remain at or about the river mouths during the summer, and eventually return to the sea, but these are so few as to be scarcely worthy of mention. The vast majority—practically all, in fact—ascend the streams to spawn, and, having once done so, die. In the case of some species every fish appears to perish; in others, to which I shall refer, a few get back to the sea.

The kelts of these salmon exhibit, though in a far more intensified degree, the changes that are noticeable in our own salmon after spawning. The jaws are prolonged and hooked, and the teeth much developed. The back becomes somewhat humped—in one species enormously so—and the skin of that region so hypertrophied and spongy as to conceal the scales. Simultaneously the colour of the body surface changes, becoming livid or dusky, and blotched with red patches, or even entirely red. The flesh gets paler in colour and tasteless, and the whole aspect of the fish denotes its unfitness for food. As they ascend the river the salmon keep close together in large shoals, each fish keeping to the shoal of its own species and not mingling with others. Later in the year, after spawning-time, they of course become indiscriminately mixed.

[1] "The History of Kamschatka," translated by James Grieve, M.D., Gloucester, 1764, p. 143.

During our visit to, and journey through the country, we met with at least six different species of the Salmonidæ in abundance. That there were others I am quite sure, but in the following list I have limited myself to noticing those only about which we personally obtained information.

1. *Oncorhynchus orientalis* (Pall.)—Known to the Kamschatkans as the Tchervitchi, this fish is the king of the Salmonidæ both as regards size and flavour. On first arrival the Tchervitchi is silvery, the back and upper surface dark, and marked with dark spots, which also extend on to the dorsal fin and tail. The fish may have a length of four feet or more, and are rather broad; their extreme weight was given by Afanasi as "over two poods," which would be 72 lbs. We did not see any fish of this size, but a salmon, most probably of this species, was caught by the *Dido's* men in 1855, the weight of which is given by Tronson as 76 lbs. There is no doubt that they commonly run to as much as fifty or sixty pounds. The Tchervitchi is proper to the Kamschatka and Okhotsk Seas, apparently not being found elsewhere. According to Steller, it only frequents the larger rivers, and does not exist to the north of the 56th parallel. He gives the date of its arrival as April 20th for the Kamschatka River, May 10th for the Bolchaia-reka, and June for the rivers in Avatcha Bay. According to Afanasi, it comes up the Kamschatka River "early in May," and gets out of season in July. It certainly appears, as far as we could learn from the natives, to wait for some days at the mouths of the rivers before ascending them, which it does in shoals so large that, as Pallas tells us,[1] a little wave of water is driven up in front of them.

We did not meet with the Tchervitchi until we got to the Kamschatka River in early September. The inhabitants had then long ceased catching them, and very few remained in the river. The balagan and drying sheds were, however, full of them, and many seemed not to have been in quite clean condition at the time of catching. As a kelt, the fish becomes marked with red on the sides, producing a streaked appearance, and the rostrum becomes hooked, especially in the male, though apparently not nearly to the same extent as in the Garbusa and other species. From the time of entering the river the Tchervitchi is said by Pallas never to feed. We made no inquiries of the people as to this point, but they told us that a certain though very small proportion of this species do not die, but manage eventually to regain the sea. The flesh is of a rather pale red in colour, and is esteemed by the natives above that of any other fish.

2. *Oncorhynchus lycaodon* (Pall.) — This salmon is known to

[1] "Zoographia Rosso-Asiatica," vol. iii. p. 368.

Kamschatkans[1] as the Krasnaya riba or red fish, but the name is invariably shortened to Krasna. In shape and general appearance it resembles our own salmon. On its first appearance in the rivers it is silvery, the belly white, the back dark with a bluish shade and almost without spots. In length it reaches three feet or more, and large examples would, I should think, scale over thirty pounds. It is found in the Okhotsk and Kamschatkan seas, and extends across to the American coast.[2] In the peninsula it seems to frequent large and small rivers alike, ascending the streams about the end of May or beginning of June, later than the Tchervitchi, but before the Haiko and Garbusa. Towards the end of August the Krasna is completely out of condition. It becomes a bright red all over like a gold fish, and both jaws get prolonged and hooked, while at the same time the teeth are wonderfully

KELT OF HAIKO. (*Oncorhynchus lagocephalus.*)

enlarged. None of the fish ever reach the sea after spawning—at least so we were informed by the natives;—and as this species is one of the most plentiful of all the Kamschatkan salmon, their bodies strew the banks in nearly as great numbers as the Garbusa.

3. *Oncorhynchus lagocephalus* (Pall.)—The trivial name of this fish is given by Steller[3] as Kaiko, but we found it invariably known as the Haiko. It is not unlike the preceding species (*O. lycaodon*), the back being dark greenish, the sides silvery, and the belly white, but it differs in the greater bluntness of the rostrum and the pale colour of the flesh. It appears, as a rule, to run smaller than the Krasna: its area of distribution is said to be similar. It arrives at the mouth of the Kamschatkan rivers some little time after the Krasna and Tchervitchi, but its advent coincides more or less with the Garbusa or Hump-backed Salmon. About mid-July[4] this species ascends the streams, and is

[1] I have here and elsewhere used this term comprehensively as "an inhabitant of Kamschatka." It should not be confounded with Kamschatdale—the name applied to one of the original races inhabiting the peninsula.

[2] Steller, "Beschreibung von dem Lande Kamtschatka."

[3] *Op. cit.* p. 157.

[4] I have also got "mid-June" in my notes, but I think the date given above is probably the correct one.

caught in great numbers. Later, the kelts show much the same changes as those of the Krasna, the jaws become much hooked; but they never acquire the deep and generally-diffused red of the latter species, that colour being usually confined to small patches on the belly and under surface. A species of bread is said by Kittlitz and others to be made of the Haiko, but we did not see it.

4. *Oncorhynchus proteus* (Pall.) is known to the inhabitants of the country as the Garbusa or Hump-back. On arrival from the sea this fish is said to be without any trace of the extraordinary development of the back from which it takes its name. It is without spots, except upon the tail—which is deeply forked—and is very silvery. It is said to frequent the rivers of the Okhotsk Sea and those of some of the Aleutian Islands, as well as Kamschatka. Roughly speaking, its length

KELT OF GARBUSA. (*Oncorhynchus proteus.*)

is from eighteen to twenty-four inches, and its weight seldom above fifteen pounds. As a rule it is considerably less.

The Garbusa swims up the rivers in company with the Haiko, and is the most abundant of all the Salmonidæ in Kamschatka. According to Pallas, the hump begins to appear even before the fish has spawned, and is generally supposed by the natives to result from the efforts made in ascending the stream! Its enormous development in the kelts can best be realised by reference to the annexed illustration. Both jaws become hooked at the same time, more so, perhaps, than in any other species, and in consequence in an old kipper the mouth does not nearly close. Until the death of the fish the gibbosity increases, and the colour of the body-surface becomes more and more livid and brown, the sides and under part being irregularly blotched with blood-red. The vast majority of this species die in the month of August, and though some few live till the middle of September, the natives told us that none return to the sea. The flavour of the flesh is said to be very good when the fish first come up the river, but the Garbusa is looked upon almost as the dogs' private property, and is not much eaten by

the natives. In the balagans and drying sheds it invariably occupies the lowest tier of all. The female fish is described by Pallas as much smaller than the male, and very much less numerous; the hump does not become so largely developed and the mandibular hooks are absent or slight. We did not, however, meet with many individuals agreeing with this description.

5. *Oncorhynchus sanguinolentus* (Pall.) is the Kisutchi of the Kamschatkans. The clean fish is silvery, and devoid of red coloration, despite its specific name. The dark greenish-brown back is marked with rather large black spots, and the snout is blunt, becoming afterwards developed in a most peculiar manner. Pallas says that the largest measure three feet and weigh from ten to twelve pounds,[1] but it is evident that a fish of this length would weigh considerably more. Most of those that we saw towards the lower part of the Kamschatka averaged, I should think, about twelve or fifteen pounds; the extreme weights, at a rough guess, being eight and twenty-five pounds.

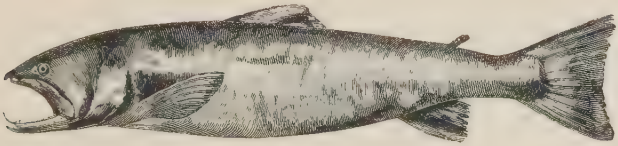
The Kisutchi is the last of all the salmon to ascend the rivers. It arrives about the 10th or 12th of August, and in consequence is in good condition when most of the other species are uneatable. In the middle of September we found the majority of them clean fish, and it is not till the following month that they usually acquire the blood-stained tinge of the under surface, and the extraordinary snout to which I have just alluded. The latter presents a smoothly rounded protrusion about as large as a sixpence, overhanging the lower jaw, and giving the fish a very comical expression. We learnt from our two hunters that the Kisutchi were caught until November, and Krasheninikov tells us[2] that they are found "during the whole winter in those springs that run into the Kamschatka from the south," which is possibly due to the fact that the water of some of these streams is warm. It appears to be a generally-distributed species, occurring in all the rivers of the peninsula. The flesh is very pale, almost white.

6. *Salmo callaris* (Pall.) is the Goletz or Gultsi of the natives. Krasheninikov says[3] that "the largest fish of this species, which lives sometimes five or six years, comes from the sea into the River Kamschatka, out of which it goes into the rivers that run into it, and by them to the lakes, where it grows almost as big as the *Chavitsi* (Tchervitchi), though it seldom weighs more than twenty pounds. They are found likewise very large in the Bistroy River; there their length is commonly twenty-eight inches, and breadth ten; they are of a dark colour,[4] have large teeth, and the lower jaw is crooked with a knob: it seems indeed of a different species. Those of three years

[1] Zoographia Rosso-Asiatica," vol. iii. p. 379.
[2] "The History of Kamschatka," p. 148. [3] *Op. cit.* p. 149.
[4] Steller also says, "auf dem Bauch und Flossen Zinnober-roth."

old, which have been one year out of the sea, have a long head, are of a silver colour, with small scales, and small red spots; and such as have been two years out of the sea are round and longish, with small heads; and their flesh, which is reddish white, is hard and well tasted. With regard to their size, the first year they are long and small; the second they grow more in breadth than in length; the third the head grows considerably; and the fourth, fifth, and sixth years their breadth and thickness increases greatly; in the fourth year also the lower part to the snout becomes hooked."

Pallas adds that "these fish enter the rivers from the Eastern ocean in great numbers . . . in order to hybernate, being still without spots. They are said to remain torpid during the winter in the depths of rivers, in shoals of thousands, until the return of spring they seek the sea again, from about the 10th to the 20th of May. They surmount cataracts of whatever height by leaping, and in the same manner escape from nets one fathom deep. They force their way into the Kuril Lake



GULTSI. (*Salmo callaris.*)

near the river Kamschatka,[1] notwithstanding a very high cataract, and hybernate in it in large numbers. Many remain for a long time in the rivers and lakes, but the greater number return in spring to the sea. When they come up from the sea they are without the red tints and spots, and shine with a silvery lustre; during the ascent they become gradually spotted with red, while they acquire a more or less red tint beneath the belly and on the fins, according to the comparative rapidity of the river currents."

Both the above accounts are very difficult to reconcile with that given us by the natives of this fish. In the first place the Gultsi, as pointed out to us, was a long fish with somewhat rounded sides; the under surface of a most beautiful salmon-colour, the body marked with pink spots, and the back and upper surface dark greenish. The fish were in perfect condition, the coloration being evidently normal, and not due in any way to disease. To a piscatorial, though un-ichthyological eye they were Charr; a fish with which I was quite familiar in Lapland lakes and rivers,[2] but they differed in having the curious, upturned

[1] It is difficult to understand what lake is here meant. The Kuril Lake is at least 170 miles distant from the nearest point of the Kamschatka River.

[2] In some of the lakes in Lapland the Charr grows to a very large size. I have seen one which scaled over fourteen pounds.

lower jaw to which I have already alluded.[1] The fish that Steller mentions, with their great breadth (depth) of ten inches, cannot well be of this species ; and their migatory habits, and the fact that when they come from the sea they are "without the red tint and spots," is, I believe, opposed to what is as yet known of the life history of the Charrs. The natives distinctly told us that the Gultsi remains in the rivers throughout the year.

Two other species of salmon are mentioned by Steller as occurring in Kamschatka :—the Kundsha (*S. leucomænis*) and Mykysha (*S. purpuratus*), but we did not meet with either of them.

Late in the afternoon we arrived at some open grassy pools, the head of a small affluent of the Kamschatka River. Mallard and teal were abundant, and having refilled our larder, we turned our attention to the numerous salmon that were splashing about in the shallow water. Whether owing to the fact that the stream was slightly warm or not I cannot say, but the majority of the fish were in better condition here than we had hitherto generally found them, and were in consequence less easy to gaff. After a few minutes' waiting we were, however, able to obtain our supper in the shape of two or three fine Kisutchi of from ten to fifteen pounds weight. Salmon is never eaten to such perfection as in camp-life, where the interval between its death and digestion is reduced to a minimum ; and whether boiled or fried in steaks, the fish has a delicacy of flavour that is rarely met with at a civilised dinner-table. But, of all methods of cooking it, one is pre-eminent in its excellence. Cleaned, split, and gutted, the salmon, which should be a small one, is impaled upon a Y-shaped forked stick, and placed half over the fire, so that it may be exposed to the occasional action of both smoke and flame. A certain amount of attention is necessary to see that it does not get too much of either, and care should be taken to turn it tolerably frequently. But if properly done—and those who have tried it will bear me out—the dish is one fit for the gods, and loses nothing from the simplicity of the necessary apparatus.

We broke camp at noon on the following day, being within easy distance of Sherowmy, where we calculated on beginning our river journey. A heavy shower fell as we were striking the tents, wetting much of our baggage and our ornithological specimens before we could get them under cover, but the weather soon cleared, and we continued our march. Our long cavalcade proceeded in Indian file over the desolate and monotonous stretches of bilberry-covered open and stunted birch-thicket,—a type of country which, however exhilarating beneath a bright sun, is depressing to a degree under gray skies and driving rain. The wind held steadily from the west, however, and having made sure of the direction in which Sherowmy lay, we left the party, and

[1] *Vid. ant.* p. 99.

turning our horses towards the river, devoted the remainder of the day to a search for bears. We had no sooner taken up our positions by the river-side than the wind shifted, fell light, and then shifted again, and all hopes of getting a shot vanished. Of there being bears in the vicinity we had abundant evidence, for the banks of the river were trampled in all directions with their fresh footmarks, among which it was easy to recognise those of an old animal of great size.[1] The remains of many half-eaten fish lay on the banks. The bears are said by Kittlitz and others only to eat the head and upper part when the salmon are plentiful, but in almost every case we found that, though the head had been crunched up, it had, together with the tail and intestines, invaribly been rejected. We were never fortunate enough to witness these animals fishing, but we were told that they walk slowly into the water where it is about eighteen inches in depth, and facing down stream, stand motionless awaiting their prey. The incautious fish swimming heedlessly up the river doubtless mistakes the bear's broad legs for a rock or tree-stump, and those who have once witnessed the almost lightning-like rapidity of a stroke from Bruin's fore-paws will have no difficulty whatever in completing the drama for themselves. The fish is apparently always taken to the bank to be devoured, for even the small ones do not seem to be eaten whole.

Sherowmy, or Sherowm,—for the Kamschatkans are fond of clipping the exuberance of their words, and turn Kamakoffskaya into Kamaki,—is a pretty little village of nine houses and forty-three inhabitants, situated on a branch of the Kamschatka River close to its junction with the latter. To the south lie a few acres of level grass and land enclosed by rough fencing, which give a home-like effect and an air of permanence which is wanting in most Kamschatkan settlements; while to the west and north flows the river, its banks thickly clothed with trees. The people, although a more or less mixed race, as are those of all the villages we had hitherto visited, nevertheless exhibited strong evidences of their Kamschatdale origin, and the high cheek-bones and general duskiness of complexion were in some cases very noticeable. They were very civil and willing to help us; and later in our journey we learnt to hail the preponderance of the Kamschatdale element with pleasure, for we then felt sure of meeting with none of the surliness of demeanour and barefaced extortion that seemed to be the leading characteristics of the half-breed Siberian Russians.

We held a palaver with the Toyune, or head-man of the village, shortly after our arrival, and gave him a letter from the Ispravnik, desiring them to supply us with canoes and men, and to help us to the

[1] Some of these Kamschatkan bears are enormous. One skin in my possession measures eight feet three inches in length, in spite of the greater part of the head being wanting.

utmost of their power. He was probably unable to read it, as I afterwards discovered Jacof expounding it to him with great solemnity. I have no doubt, however, that the document lost none of its force in the rendering, for we were shortly afterwards supplied with more cream in addition to that they had already sent us, and were informed that arrangements should be made for our start upon the morrow, as we desired. Much as we all wished to linger on our way, and to yield to the abundant temptations in the way of sport and natural history that the country offered us, we felt that we could not do so. We knew nothing of the length of the river journey that lay before us, and no one at Sherowmy was able to give us any information on the subject. The signs of approaching winter had already begun to make their appearance. The woods were aglow with autumn colouring; the new snow had already freshly powdered the lower slopes of the mountains, and the clear frosts to which we now awoke every morning warned us that we had better not delay. On board the yacht, which was to meet us at the mouth of the river, there was, of course, no means of knowing the date of our arrival, and to keep the ship knocking about a dangerous coast, of which all we knew was that it was unsurveyed and exposed, would be in late September or October a decidedly risky proceeding. We accordingly gave up the plan we had formed of remaining for a short time in the neighbourhood of Sherowmy, and resolved to push on without delay.

CHAPTER VII.

KAMSCHATKA (*continued*).

On the morning of September 1st our horse-boys departed on their return journey to Petropaulovsky. Whether it is owing to the depression peculiar to the country, so enlarged upon by Kittlitz, I cannot say, but there seems to be an utter lack of geniality among these people. They took their wages resignedly, and bade us an unceremonious adieu. Handshaking—the kindly custom in Scandinavia and other northern countries on the termination of an engagement between master and man—appears to be unknown in Kamschatka. Perhaps after all it was better, for I do not suppose that any of us felt any great degree of affection for Vodki, and at a later period of our journey, fist-shakings would have better expressed our feelings towards the greater proportion of the people with whom we were brought in contact.

Having despatched a letter to the yacht with instructions as to the date of departure for the rendezvous at the mouth of the river, we went down to the stream to make the necessary preparations for our voyage. The only species of boat used in the interior of the country is a dug-out canoe,—a clumsily-shaped craft made from the trunk of the *topoyina* or poplar-tree. They are generally about twenty-five or thirty feet long, by two feet in beam and depth, and are made to a great extent by burning out the interior of the tree-trunk selected, the finishing only being done by means of axes. We were able to procure five of these boats, and by their aid constructed two rafts in the following manner. We lashed three together side by side, with an interval of about one foot between each, taking care to place the weakest in the middle, and on this foundation placed a platform of poles and axe-hewn planks amidships, for a length of twelve or fourteen feet. Over this platform we constructed a rough shelter-hut, with a birch-bark roof sloping away behind, and the back and sides composed of waterproof sheets which could easily be furled or removed when necessary. The other raft,

which carried Louis, Cook, and our two hunters, was made in the same way, but without the hut; and owing to its having but two canoes as a foundation, was laden fully up to where its Plimsoll-mark should have been. Our natives sat at the head and stern of each canoe wielding paddles with a spade-like handle. They were also provided with poles, the use of which, wherever the river was sufficiently shallow, they seemed greatly to prefer. Shortly before noon our preparations were completed, our men waved their adieux to the remaining three-fourths of the inhabitants of Sherowmy, and pushing out into mid-stream, we began our descent of the river.

PADDLE.

Immediately below the settlement the branches of the Kamschatka reunite to form a stream nearly as wide as the Thames at Hampton Court, but scarcely more than a foot or two in depth. The current is rather swift, but without rapids, and the only dangers to be apprehended are the snags beneath the surface of the water. In the upper part of the river there are not many, but, lower down, the tremendous freshets which occur on the melting of the snows carry down trees of large size, piling them in enormous masses upon the banks, and depositing the water-logged trunks in the shallower parts of the river, a collision with which would probably result in the sinking of the canoe, from the liability of these craft to split. We progressed with tolerable rapidity, averaging about six versts an hour, rejoicing that stampedes were now things of the past, and that there was at least a possibility of some of our possessions reaching the journey's end unbroken. The river in its earlier course is very winding, and Werchni Kamschatka, the next settlement we expected to reach, although only twelve versts from Sherowmy by land, is more than six times that distance by river. As far as our own feelings were concerned, however, we would willingly have prolonged it yet more, for weather and scenery were alike lovely. The river ran between pebbly banks lined with birches, whose white-barked stems contrasted with the brilliant gold of their foliage. Reach after reach of still water opened out to us its quiet beauty, and here and there a little gap revealed a Hobbema-like scene of sunny distance, whose clearness was unbroken by the waver of a single leaf. Far away in front rose a range of deep blue hills, jagged and peaky, patched only with snow, for their southern slopes had been thawed by the heat of the summer sun. The calm surface of the water was covered by little packs of duck, which rose in long lines as our rafts approached, and the smoke of our guns formed miniature clouds in our wake which hung motionless above the stream until the rounding of a corner hid them from our

view. We paddled on silently, our natives talking but little. Now and again the warning *na pravo*, *na levo* (to the right, to the left) told of the neighbourhood of a snag, or a shallow bank necessitated the use of the poles; but for the most part our progress was one of uninterrupted quiet, and the laziest of Nature's lovers could have asked for nothing better than to sit and be paddled thus for the rest of his natural life.

We saw no four-footed game, with the exception of a couple of yellow foxes (*Vulpes fulvus*), who sat inspecting us curiously as we floated down, and were none the worse for their temerity. According to our hunters, these animals are not nearly as common now as formerly, though from what reason it is difficult to say, as the skin is of no great value, and they are in consequence not much hunted. Ducks of the kinds I have already mentioned were in great numbers, and the Merganser (*M. serrator*) also seemed fairly abundant. It was of course impossible for us to reach Werchni Kamschatka before nightfall, so, having made about forty versts, we landed on one of the broad pebbly beaches, where the spring freshets had already collected abundant firewood for us, and pitched our camp. The Sherowmy men had a simple but effective plan of cooking duck that I had never seen before. The bird is plucked with care, so as to leave the skin unbroken, and is not drawn. A stick is forced down the throat, and the other end stuck into the ground close to the fire. The effect produced when a party of a dozen are thus cooking their suppers is not a little absurd: it is as if the camp-fire had burst into a perfect girandole of naked ducks, who fly quacking from it in open-mouthed alarm.

We had hitherto been favoured with far finer weather than that usually to be expected during late autumn, but the next day dawned threateningly, and before long fulfilled its promise to the utmost. A pall of thick leaden clouds with ragged edges hung over us, and a steady downpour which showed every prospect of continuance soon commenced. Hour after hour we paddled on through the driving rain, and it was not until after mid-day that we stepped ashore, wet and cold, at the hamlet of Werchni Kamschatka. Like most of these places, it is composed of a bare dozen of huts, with a total population of less than fifty souls; but it enjoys the distinction of being the only settlement on the Kamschatka River that is marked on the English chart of the country. In bygone days it may have merited it, for it was one of the first *ostrogs* established by the Russians after their conquest of the peninsula. Now, however, Melcova must be regarded as the chief town of the interior, and its proximity—for it is only fifteen versts distant—must always effectually keep its rival in check. We were glad to get warm and partially dried at the house of the head-man before starting again for this latter place. Some few signs of cultivation were apparent: a few potatoes and turnips, and a small field of rye, the first cereal we had

met with since our arrival in the country. It looked miserable enough under the pouring rain, and probably had little if any chance of ripening.

Three more hours of rain and paddling brought us to Melcova. It was almost too wet for shooting, but we noticed two or three small parties of the red-necked Phalerope (*L. hyperboreus*) on our passage. Those that we obtained were in autumn plumage, and were most probably on their way to warmer latitudes. But few duck were to be seen. They had in all probability betaken themselves to the marshes at the onset of the rain, and the river was devoid of life. Before reaching the village an elaborate arrangement of fishing-stakes gave warning of the presence of what in Kamschatka may be termed civilisation. The stakes stretched right across the stream from bank to bank, but we found a small gap at the side sufficient to admit of the passage of a single canoe, and capable of being still further enlarged by pressing down the stakes. The arrangement for taking the fish consisted in the construction of small *currals* at intervals of about fifteen yards. These were long bottle-shaped baskets on the lobster-pot principle, furnished with doors opening at the lower end, by means of which the fish could be secured by gaff or otherwise. We learnt that there were very strict rules with regard to the complete barring of the river at this spot. The inhabitants are obliged to leave a free passage for the fish at the time of their first arrival in the spring, and also on certain days in the week or month at a later period. But for this arrangement the people of Sherowmy and Werchni Kamschatka would of course be without means of subsistence during the winter months.

The head-man of the village received us on landing—a person of far higher class than any we had hitherto met, and apparently of unmixed Russian blood. He was the keeper of a small store, and owned a capital little log-built house, which we found uninhabited, and apparently intended for the reception of passing travellers. This he at once placed at our disposal. Tired and wet as we were, the prospect of pitching camp in a sea of mud was not a pleasant one, and breaking through our usual rule, we accepted his offer with pleasure. Before long we were enjoying the unaccustomed luxury of a chair, and were able to skin our birds in tolerable comfort for the first time since leaving Petropaulovsky.

Melcova owes its origin to an experiment. With the view of encouraging the cultivation of the land and of making something more of the country than a mere hunting district, where the inhabitants caught enough salmon during the summer to enable them to go after the sables in the winter, a small colony of Russian peasants were settled here in 1743, who were to devote themselves entirely to agriculture. The result has been to a certain extent successful, for the community

THE KAMSCHATKA RIVER AT MELCOVA.

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is a tolerably flourishing one, and with its population of over two hundred, is the most important settlement in Upper Kamschatka. It may, nevertheless, be doubted if the cultivation of the land has contributed to any great extent to its success, for, from the severity and uncertainty of the climate, the prospects of the farmer are as little encouraging here as they are anywhere, and there are probably the full average of sable-hunters in Melcova. But there are small fields and gardens, and a number of cows, which combine to give the place a more home-like and settled aspect than is usual in most Kamschatkan villages.

A great portion of our own interest in the place centred, I must confess, in a store. Here, in a space of about twelve feet by eight, we found flour, tea, sugar, candles, axes, and a few odds and ends for sale, but there were no sables or other furs as we had hoped. We had run short both of tea and sugar, and were glad to be able to get them. The so-called brick-tea, is, of course, the only kind in use here, as in other parts of Siberia. It is made in cakes about ten inches by five, and three-quarters of an inch in thickness, squeezed flat by hydraulic pressure, and stamped with large Chinese characters; and were it only of better quality, it would be admirable for rough travel from its portability, and the impossibility of its becoming spoilt by wet. Brick-tea is to a Kamschatkan what coffee is to a Lapp. It is found in the very poorest and most miserable hut, and is regarded as just as much a necessary of life as tobacco. That sugar should also be highly esteemed by the natives is only what might be expected in these latitudes, but its price places it beyond the reach of most. We obtained some at the rate of eighteenpence a pound, but when Dobell visited Kamschatka in 1812 it was sold for as much as five roubles.

Melcova boasts of a resident pope and a church; the latter a log-built edifice, which was moved many years ago from Werchni Kamschatka. It is not ornamental, and is painted red on one side only. The pope received us at the porch, and showed us the interior with evident pleasure; while we, as in duty bound, did our best to assume the necessary air of charmed approval. It must be confessed that it was no easy matter, for the building was completely bare inside, and the walls were covered with English bedroom paper of the commonest kind, set off by an occasional breadth of another pattern, in which pink roses on a bright blue ground displayed themselves in the full atrocity of the early Victorian epoch. Over the altar were a few oil-paintings of saints, one or two of which were passably good.

In the same inclosure as the church, but apart from it, as is the usual custom, stands a little square belfry containing seven bells of peculiarly sweet tone. One is inscribed with the date 1761; the others are more recent. The church itself, we were told, was so old as to be

beyond repair, and another one was in course of erection close by, the logs of which were of very large size. The whole of the labour and material necessary for its construction was being gratuitously given by the inhabitants. I am obliged to record the fact that the building did not appear to be progressing with very great rapidity.

The weather on the following day showed little signs of improvement. A biting wind with rain and sleet at intervals made us not sorry that we had settled to take a Sunday's rest here. Some fifteen miles or so to the eastward is a fine range of mountains about five thousand feet in height, which the downpour of the day before had covered to the lower slopes with fresh snow. Here and there a passing touch of sunlight fell upon the peaks and threw them out in bold relief against the leaden sky. But, late and cold as it was, the fishing had not ceased, and by the river-side they were cleaning and preparing Kisutchi—the latest salmon that visits Kamschatkan waters. Numbers of the King Salmon (*O. orientalis*) hung drying in the balagans; many of very large size. The current of the river is rather swift here and at Werchni, and we learnt that it does not usually freeze completely over until the end of January. It would seem as if the severity of the frost were never very great until that month. The snow invariably falls throughout the country in October, or even earlier, but it is seldom fit for sledge-travelling until November.

While at Melcova we tried to get some of the reindeer-skin dresses of the country, as we had already felt the cold considerably in European clothes, and knew that at this season the thermometer would sink steadily from day to day. They had none for sale in the settlement, and we had to send over to Werchni Kamschatka for them. These dresses are of two kinds, the *kuklankas* and *parkas*, and are merely loose sacques composed of pieces of reindeer-skin beautifully dressed, and sewn together with thread made from the sinew of the animal, just as are the "karosses" of South Africa. They are provided with a large bearskin hood, and are put on over the head without fastening of any kind. The rest of the costume is composed of a pair of breeches of like nature, and boots almost exactly resembling those in use in Lapland,—made of soft leather throughout, the sole included. The toe is slightly turned up, probably to keep the feet in place when in snow-shoes, and the boot is tightly stuffed with fine hay, which is intended to supply the place of stocking and sole combined. The *kuklanka* is merely a double *parka*, having the fur both outside and inside.

On the morning of the 4th September we left Melcova and resumed our journey down the river. We had hitherto only been able to buy one canoe, and in consequence were in need of four others with which to make our rafts. These they refused to sell us, but offered to lend them, together with men to take us on to Mashura, the

nearest settlement, for fifty roubles! The silver rouble being nearly three and sixpence, and the distance only sixty versts—rather less than forty miles—we at once refused, regarding the demand merely as one of the common incidents of bargaining, and expecting it very soon to

OUR COSTUME ON THE LOWER KAMSCHATKA.

be considerably reduced. We were rather astonished that there was no sign of anything of the kind, and after waiting some time we had ourselves to return to the charge. In vain we threw the Ispravnik at their heads: we had a discussion of an hour and a half's duration, which at last ended in our agreeing to pay forty roubles, but under protest. At the same time we informed them

that we should lay the matter before the Ispravnik on our return to Petropaulovsky.

It was two or three hours after sunrise before we got fairly under way. The weather was gloomy and cold, but with the exception of one heavy shower, we escaped without much rain. Shortly after leaving Melcova the character of the river scenery changes. For the first time on our journey we noticed the pine and spruce, and welcomed them with pleasure, as a relief from the wearisome monotony of poplar, birch, and alder. Here and there curious mud cliffs bank in the stream; often eighty feet or more in height, and nearly perpendicular.[1] The men begged that we would not fire while passing under them, lest a landslip should occur; and apparently with reason, for the soil appears to be constantly crumbling away, and little cascades of dust poured unbrokenly from the face of the banks as we paddled beneath. In one place we noticed a chalybeate spring welling up close to the water's edge, while others of pure water seemed abundant at the base of these earthy cliffs.

Losing sight of the range near Melcova no more mountains are seen, and Mashura, a village of fourteen houses and eighty-eight inhabitants, has but little to recommend it in the way of scenery. Excepting at the settlements no boat is ever met with, and voyaging on the Kamschatka is regarded by the natives as an affair of some moment. Our approach was accordingly heralded by numerous discharges of blank cartridge from the guns of our raftmen, and as we stepped ashore shortly after sunset we found the head man awaiting us, together with a considerable proportion of the inhabitants. Anxious to prevent a "ring" between them and the men we had brought from Melcova, we approached the subject of canoes for our further journey as quickly as we could. But we had been anticipated, and we began to see that henceforward extortion was to be the order of the day in every case in which we were brought in contact with these people. They refused to sell us canoes, and demanded sixty roubles to take us on a distance of as many versts—a rate which would have left us with empty pockets before we had got half way down the river. For a small birch-bark jar of milk they asked half a rouble, and charged in like proportion for other articles. In these cases, however, our line of action was simple. We took the things at once, placed them inside the tents, and paid what we considered the proper sum. They refused the money, and when we turned in for the night without having come to any definite settlement for the following day, the relations between us had become considerably strained.

[1] These banks of reddish marl, known by the name of *yar*, appear to be not uncommon in Siberia. The town of Krasnojarsk on the Yenisei is thus named from their existence in the vicinity.

Mashura was, in bygone days, one of the largest Kamschatdale settlements in the centre of the peninsula, but smallpox—the disease so fatal on its first introduction among uncivilised nations—broke out in 1767, and ravaged the country to such a frightful extent that it is said to have killed nearly three-quarters of the natives, and the village has since dwindled down to its present insignificant size. The people were short, but strong-looking men, with scanty beards and straight hair, which was either light or dark, according to the preponderance of Russian or native blood. Most of them were clothed in leather breeches and the boots I have already described, with the ordinary loose blue shirt of the Russian peasant, but some had already commenced to wear the *parka.* These are not all of reindeer, which is not a common animal except among the Koriaks, but are also made of bear and dog fur, although the dogs are not grown for the purpose, as is the case in Lapland.

If leprosy be in any way connected with a diet in which fish is one of the chief constituents, as is by some supposed to be the case, in no country in the world should it be more prevalent than in Kamschatka. Dr. Dybowski had assured me that it was very common, and had shown me photographs in which the expression of the disorder appeared identical with that unfortunately so frequent in Norway. But the only case which came under our notice was at this place, and since the sufferers do not appear to be secluded in any way, it is only fair to conclude that, in the interior of the country at least, the disease cannot be very prevalent. Syphilis is, unhappily, very general, but its effects are now far less terrible than on its first introduction.

We paddled merrily down stream in spite of the still unsettled arguments as to the price we were to pay our men. Below Mashura the pines become more numerous, and the perpendicular mud cliffs are a characteristic feature of the river. Beneath these we found the depth of the stream to be often as much as eighteen or twenty feet, but the mean depth is probably not more than half as great. Huge piles of driftwood block the banks of every low promontory, and testify to the enormous force and volume of the stream upon the breaking up of the ice,—a phenomenon which can dimly be realised from the wonderfully graphic description of Mr. Seebohm in his "Siberia in Asia." Owing to the increased depth of the water, snags become less frequent and navigation easier; but the size of our rafts prevented us from making more than five versts an hour, a rate which our log, frequently heaved and with corrections applied for the current, told us to be fairly constant.

Hitherto we had been able with the greatest ease to shoot as many duck as were daily required for our party. At this part of the river, however, there were much fewer, but the birds of prey had largely

increased in numbers. The Ernes (*H. albicilla*) and Hobbies (*H. subbuteo*) were most common, and we procured a fine pair of the former. Neither of these species were shy, but it was only with considerable difficulty that we were able to get within shot of the Ospreys, which we found hawking the river in pairs, but less abundantly. We also shot a specimen of the Red-throated Diver, but our ornithological collection progressed but slowly, the number of species presenting themselves being extremely limited. In spite of the apparent absence of fish—for here but few lay dead upon the banks—the spoor of bear was as plentiful as ever, and an occasional one was more than once visible as we floated down. But unfortunately our journey had now resolved itself into a race against time, and delay was out of the question.

We broke camp long before dawn on the morning of the 6th September, and were afloat once more at 6.30 A.M. The morning was fine, but bitterly cold, and as the sun rose, the trees and long dank grass, glittering with the thick hoar frost, presented a rather more wintry scene than we desired. We were glad enough to seize the paddles and get what exercise was possible, and after two or three hours' sharp work we arrived at a bend in the river where a birch-bark hut and two or three canoes appeared to indicate the neighbourhood of a settlement. Not a soul was to be seen, but we learnt that Tschappina—a little hamlet of six houses—lay some five or six versts distant from the river, and at once despatched Afanasi to get what men he could. In three or four hours he returned, accompanied by four natives, but only two canoes were fit for use. The Mashura men, after some talking, offered one of theirs for the modest sum of forty roubles, and after half an hour's wrangling, we eventually became the purchasers for thirty. Its actual market value was less than ten, but we felt that if we could only get two more, we should be entirely independent of the natives, and considered it cheap. A further row then took place with regard to the price to be paid for the distance we had already gone, and when we eventually got off we discovered that we had lost five hours and a certain amount of temper to boot.

We floated silently down stream for a couple of hours or more, thinking over the discussions that, we knew only too well, would be renewed at the earliest opportunity, when, turning a sudden corner, we found ourselves face to face with a view that banished all thoughts of past and future annoyances in a moment. Before us, eighty miles or more away, stood one of the grandest groups of volcanoes in the known world. Others there are, it is true, that are higher, although in most cases the elevation of the ground from which they take their rise detracts in no little degree from their apparent height. But here, from a base elevated scarce a hundred feet above the sea, a series of cones

of the most exquisitely-symmetrical shape rose in heights varying from twelve to seventeen thousand feet. They were three in number. Nearest us was Tolbatchinska, dog-toothed in shape, with its apex on the western side, a long thin puff of white smoke drifting from its shoulder; and beyond, apparently in close proximity to one another, rose the twin peaks of Kojerevska and Kluchefskaya, perfect in their outline,—pyramids of the purest snow, before which one felt how poor was all language to express the sense of their perfect beauty. Snow mountains were no novelty to us. We had seen the Andes and the Alps, and had watched the sun rise on Cotopaxi, on Etna, on Fujiyama, and a dozen other mountains of equal note. But here all questions of comparison would have been a sacrilege, and floating noiseless over the unruffled surface of the river we sat spellbound, drinking in the view. The sun sank slowly as we crept along, and slope and peak, at first a dazzling white, turned slowly to a glowing gold. On either hand the fast-approaching night had changed the glories of the autumn tints to a sombre shade of violet, and behind us the river was a mere streak of light. The bright glow of the fire upon the other raft lit up the bearded faces of our Russian guides around it, and when the daylight had fairly waned, the head of Kluchefskaya stood out a pale greenish white,—a spectral mountain against the fast darkening sky. Come what might, even if we were never again to get a glimpse of them, we had seen the great volcanoes, and we felt that the sight was one that we could not easily forget for many years to come.

Constant practice, together with the "division of labour," had by this time rendered the pitching of our camp an affair of a few minutes only. Pressed as we were for time, we had to continue paddling until it became too dark to see the snags or sunken rocks ahead. The rafts were then run ashore at the nearest beach and the site for the tents selected. In this we had the choice of two evils—the rough ground and rank vegetation of the forest above and the stony or sandy beach by the water's edge. We always chose the latter, owing to the difficulty of clearing the forest, but it must be confessed that the greater cold and damp of the river-banks almost outweighed their advantages. The cooking of the dinner, which the indefatigable Spiridione had nearly completed on the raft, received its finishing touches at the new fire, and almost before the tents were pitched the usual menu awaited our approval. It was not a varied one certainly, but it was the most luxurious I have ever experienced in camp-life. Soup *à la chasseur*, boiled salmon, stewed capercailzie or grouse, teal *à la* Kamschatdale, bilberry jam, and tea and coffee form a very respectable meal for a traveller whose appetite has been sharpened by the keen air of a

northern autumn; and it was but seldom that we failed to do justice to it. And when the journals had been written up and the birds skinned, and we smoked our last pipe at the enormous fire before turning in, we felt that, but for the natives, Kamschatka was as pleasant a country for camping as we had ever experienced.

We were usually afloat again before six o'clock, but our departure was somewhat delayed on the following morning by the unintentional cold bath of one of the members of our party. It is doubtless something of a surprise to the system to find oneself at early dawn, with the thermometer below freezing, struggling in an icy river with all one's furs on, but the unlucky bather was soon ashore, and a sharp rub-down at the camp-fire soon restored both his circulation and his equanimity. The day was once more bright and clear, and the distant peaks looked magnificent in the morning sun. As we drew nearer, the mountains opened out, and the western slopes of Tolbatchinska no longer hiding Kojerevska, the latter volcano appeared, from this point of view at least, as a perfect cone of regular shape, which half concealed the equally regular and still higher peak of Kluchefskaya, the king of the volcanoes of Kamschatka. Other mountains too had come in view. To the north and west of Kluchi,[1] but in close proximity to it, the smoothly-rounded summit of Uskovska rose above the dark line of forest, and far away to the eastward two isolated and nameless cones of graceful shape appeared on the horizon, which, in spite of their eight or nine thousand feet, are recorded in no map.[2]

At this part of the river the conspicuous marl cliffs disappear, and the pines are replaced by aspens, a tree of which we had hitherto seen but little. Landing in the afternoon to take photographs and observations, we came upon quantities of the *cherunka* or wild cherry. The fruit is black, and of the size of a large black currant; very sweet, but with a peculiar sloe-like astringent after-taste. The delicious Scandinavian *moltebæer* we did not meet with, but our common raspberry and red currant are in some places plentiful. The latter fruit is, in our English gardens, scarcely worth eating, but in the wild state it is very sweet and palatable.

Eleven hours' steady paddling brought us, at 6 P.M., to three deserted balagans, without fish, and with nothing to indicate the presence of a human being save four canoes hauled high and dry upon the bank. We learnt that Tolbatchik, a village that we expected to find here, is not situated on the Kamschatka, but upon a tributary stream which joins the main river some forty versts lower down. There is a short cut overland, however, and we settled to camp and despatch

[1] To the natives, with their love of contractions, the great mountain is thus invariably known.

[2] These we have since named Mount Gordon and Mount Herbert Stewart.

Jacof Ivanovitch to the village at daybreak on the following morning for a fresh relay of men. Close to the camp we shot a large blue hare, the pats of which were very much developed, and clothed with the thickest fur. This, curiously enough, was the only one we met with during the whole journey. The sunset was strikingly beautiful. The eastern sky was a deep purple, and the snowy peaks so bright a rose-colour, that no painter would have dared to transfer them to canvas. But the appearance of the weather was unmistakeable, and we set to work at once to dig deep trenches round the tents in anticipation of the coming rain.

The morning broke as we had foreseen. The wind had shifted to the south, and the rain descended with a steadiness that boded a long continuance. The dull leaden sky reminded us of our native land, and the heavy mist seemed to render even the inside of the tents almost as wet and chilly as the sopping grass without. The natives had retired to their tent, and Verglaski alone, slow and imperturbable as ever, seemed unaffected by the weather. Jacof had started early for Tolbatchik, and there was nothing to be done until his return. We went in search of birds, either for preservation or the pot, but hardly a living creature was to be seen, and a hobby, an owl (*Surnia ulula*), and a small thrush (*T. fuscatus*, Gm.) were the only specimens we obtained. The afternoon, however, was relieved from dulness by our natives, though in a manner that was anything but agreeable, for we found ourselves involved in a renewal of the endless wranglings and discussions of which we had already had more than enough. The Mashura men applied for their money, stating that they wanted to return. Four of them had gone back at Tschappina, but the other four had come on with us, and to these we tendered a sum exactly proportionate to that they had already received for the first part of their journey. This, with a very offensive manner, they refused to take, and after some discussion among themselves, retired again to their tent. The conduct of these men had been anything but agreeable in every particular. They had always refused to help us in any way with the ordinary work of the camp, such as getting wood or carrying the baggage from the rafts; and on our sending Afanasi in the morning to cross the river and inspect two canoes upon the farther bank, they would not lend him one of their boats without payment. We also discovered that the canoe which we had bought from them only two days before had been split from stem to stern,—though whether by accident or design it was impossible to say,—and would probably prove quite useless after a few more hours' work.

After some more discussion in their camp—for the natives always pitched their tent at some distance from ours, and held no communication either with ourselves or our two Russian hunters unless it was

absolutely necessary—the Tschappina men now appeared in a body to say that they must be paid for the distance they had already accomplished, or they would not accompany us any farther. This was a most transparent ruse, and we at once flatly refused their request, knowing that if we gave up our only hold on them, we should not be able to obtain their canoes for the further journey, except by yielding to demands even more exorbitant than those they had already made. Our position was not a very pleasant one. We were getting anxious about the yacht, as the distance down the river proved to be considerably greater than we anticipated, and even if we got on without further delay, it seemed probable that we should still be some days late. Our stores were getting rather low, and the weather, we knew, would not hold much longer. Yet here we were, in the very middle of the country, and as far as regarded our means of transport, completely at the mercy of the natives, who were perfectly aware of the strength of their position, and were using it to bleed us to the last kopeck. Had time been no object to us, we might, no doubt, have constructed a couple of tree-trunk rafts of sufficient buoyancy to float our baggage, but here there were no pines, and as we had but little rope, we should have had to make use of willow fastenings. It would have cost us five or six days' hard work, and grudging almost every hour of delay, we only looked upon it as a last resource.

In the evening Jacof's dripping form appeared at the door of the tent, where, as philosophically as we could, we sat skinning a very fat and extremely fishy eagle. He had brought four men with him. We had thus natives from no less than three settlements in the camp; from Mashura, Tschappina, and Tolbatchik; and as we got under our reindeer skins for the night, it was with the feeling that at least there was abundant material for a very pretty row upon the morrow.

We were up early, anxious to get the affair over as soon as possible, for we had settled on our line of action, and had no intention whatever of yielding a single kopeck. The ball was opened by the Mashura men, who again claimed an exorbitant sum. We replied by once more making our original offer, which they refused. They had, it appears, made arrangements with the Tschappina people, and thinking that by their co-operation they had got us in a corner from which there was no means of escape except by our yielding to their demands, they took to their canoes and paddled away, doubtless thinking that before long we should be obliged to send after them. The Tschappina men were still talking among themselves, when a fresh difficulty arose with the four new-comers from Tolbatchik, who demanded to know what we were going to give them. We told them that one rouble per diem was our settled pay for each man, counting three days for every one day in order to allow for the return journey, but in this case as the work

would be harder, we would give a rouble and a half. This offer, which was in reality far more than they ought to have had,—for six shillings a day is, it must be admitted, very tolerable pay,—they refused, but eventually agreed to go as far as the hamlet of Kojerevsky, which, according to them, was over two hundred versts distant, for the sum of seventy-five roubles.

The Tschappina men now returned to the charge, but we cut short all discussion by telling them that if they did not accept our terms, and prepare to come on with us without delay, we should not pay them a single kopeck for the distance they had already brought us. Our ultimatum was, however, of no effect, for they felt quite secure of us, having no idea of the plan we had resolved on; and accordingly they retired to their tent to sleep away the rest of the morning, until we had made up our minds to yield.

We had, nevertheless, one trump card left. It was after all but a poor one, but we determined to see what could be done with it. We had four canoes at our disposal, two belonging to our Tolbatchik men and two to ourselves. Of the first, one appeared to be in good condition, the other was patched and leaked in all directions, and our own craft were in still worse condition. The split one was expected to founder at any moment, and the other was so old and rotten that we could in many places push our fingers through it. Our plan was to lash all four together, and on the raft thus constructed to pack our party of eleven men and all our baggage. We worked with a will, and in a couple of hours the affair was finished. In point of security it was, perhaps, not all that could be desired, and contact with a strong snag would no doubt have placed us in no very pleasant predicament, but we were thankful to find that it held together and was capable of supporting us. We had won the game after all.

We pushed out into mid-stream and shouted a sarcastic good-by to our enemies. It must have been a bitter moment for them as they emerged from their tent and saw their legally-earned, as well as their prospective roubles rapidly disappearing from their view, and we forgave them the harmless curses they bestowed upon us. They were wise enough not to resort to stronger measures, although all were armed, and in another minute or two we rounded a corner, and the scene of our late squabbles was lost to sight. In justice to ourselves I shoud add that we deposited the money actually due to these men with the Ispravnik on our return to Petropaulovsky, but I believe that we should all have been glad to think that they never got it.

We had patched up our canoes as well as we were able before starting, and were glad to find that they made but little water, although the large, and as we had supposed, sound one, proved after all to be quite as leaky as the others. The weather, which had been gloomy

and threatening, now showed some signs of improvement, and our spirits rose with the more promising condition of our surroundings. The size of our raft was against fast travelling, but we paddled steadily on, and had made forty versts before camping for the night. At 6 P.M. we passed the mouth of the Tolbatchik River, coming in on the right bank; a tolerably deep stream with a breadth of about thirty yards at its junction with the Kamschatka. We held a consultation as to the possibility of going on all night, but the cold was so great and the passage down the river so risky from the snags, that we eventually decided against it. An accident to our raft in its present state would have been something more than a misfortune; it would have meant little less than absolute disaster.

CHAPTER VIII.

KAMSCHATKA (*continued*).

Our journey of the previous day had made a very perceptible difference in the appearance of the great volcanic ranges we were approaching. When we pitched camp it had been too dark and cloudy even to catch sight of them, and the uncertainty of the weather rendered it more than probable that we should never have another opportunity of seeing the peaks in the cloudless magnificence in which we had been fortunate enough to sight them for the first time. Before starting on our journey Dr. Dybowski had cautioned us against being too sanguine in this respect, warning us to take photographs whenever the slightest chance presented itself, and adding that he had been a fortnight at the base of Kluchi without ever catching a glimpse of it. We were destined, however, to be far more fortunate. The camp was astir long before dawn, and as the first blush of light appeared in the east, we looked up, and lo! almost over our heads, as it seemed, there stood the mighty peaks of Kluchi and Kojerevska, ink-black against the morning sky, their shoulders shrouded in a thick mantle of cloud. An impenetrable dark mass to our right showed us the position of Tolbatchinska, as yet unroused from his slumbers by the dawn; and as we sat drinking our morning coffee at the fire, and trying to get some warmth into our limbs before starting, the day broke, and the dense fog over the river moved uneasily before the faint puffs of the morning air. We were soon afloat, and at first the wall of vapour shut out all but the nearest objects from our sight, but as the sun rose and projected the huge shadow of the mountains over the country far ahead, the mists vanished as if by magic before its warmth. Only the icy dress with which they had clothed each leaf and twig remained, lending an unwonted beauty to every common object and a yet further grace to the drooping foliage that overhung the river. The breeze of the early morning had died away, and Nature seemed frozen into silence.

Aspen and Birch alike were as still as death. But every bough sparkling with the hoar frost, each grass-blade glittering in the sun, was an argument against Kittlitz's "*niedergeschlagenheit*" that was not to be overcome. Even Afanasi seemed insensibly to be affected by the beauty of the scene, and crooned some quaint and fitful song beneath his breath as he wielded his frosty paddle.

Ah! those mornings of the far north! Does not the current of our blood, thickened by the fogs of a London November, or languidly pulsating under the sweltering heat of a tropic sun, quicken at the very thought of them? Do we not all feel young again as we recall the sound of our footsteps ringing on the frozen ground, and picture the wondrous beauty of the combination of pine-tree, sunlight and snow? The difficulties and worries of life are forgotten; we are content with the mere pleasure of actual existence, and morally, as well as physically, we are better men. No morbid introspection, such as is begotten of the more sensuous beauty of warmer climes, is possible under such circumstances. We have all of us, I suppose. some pages in the past history of our lives to which we do not care to turn. But here they are as though they were not. Hope, action, content, have come to us in place of the profitless regret of the past, and life is once more before us with as fair a promise as it held out in days long since forgotten. I have neither the wish nor the ability to describe the scenery of the Kamschatka River and its great volcanoes. In these days of carelessly-used superlatives it is best left alone. But the memory of it will always remain with me— the memory of scenes far more beautiful than anything I had conceived possible.

Our observations had hitherto been of a rather disconnected character, but at this period of our journey we commenced a rough chart of the Kamschatka, which we continued for a distance of over two hundred miles to its mouth. As this involved the recording of the exact length and direction of every reach of the river, which, it should be added, was conspicuous for the multiplicity of its windings, it may be imagined that the task was one requiring no little trouble and attention. Soundings of the river were taken from time to time, together with observations of the various peaks and their bearings; and, at the end, we found ourselves in the possession of sufficient data to construct a plan of the Kamschatka and its neighbouring volcanoes from Kojerevsky village to the sea.

We paddled on without incident for some hours, when, rounding a corner, we came upon a canoe—the first that we had met since starting on our river journey at Sherowmy. It contained a young man of what, in Kamschatka, might be termed the upper class of society. He was "three days out" from Kluchi, and was bound for Melcova. We ranged our raft alongside and exchanged greetings, and we learnt from


C.
A. B. E.
View A.
F.
G.
Sevelitch 10,750 feet
Crater active
High Pt
Var 5½ E
Kamakotchly Village
W. Entrance
Hills 2,000 to 3,000 ft
Tagloki Narrows
E. Entrance
River there are
Nischni Kamschatka
Breadth of River here about 1,200 yards
Nerpitchie Lake
Ust Kamschatka Village
Lab. out Tower
View E.
Raduga River
Hills 400 to 3,000 ft
Cape Kamschatka
Herbert Stewart
cano, Approx. pos^n
parently extinct)
Molotilova River
Mt Gordon
Volcano, Approx. pos^n
about 8,000 f^t
(apparently extinct)
Plan of part of the
KAMSCHATKA RIVER
by
LIEUT. R.ff. POWELL R.N.
and
F.H.H. GUILLEMARD M.D.
Statute Miles
Stanford's Geog^l Estab^t, London

him that we should be able to reach Kojerevsky that night without difficulty. It was thus evident that our Tolbatchik men had, in plain words, lied to us about the distance, as it was of course impossible for us to go two hundred versts in less than two days. The character of the half-breed Siberians in Kamschatka is more contemptible than that of any other natives with whom I have ever been brought in contact, and our oft-recurring feuds with them during our river journey went far towards spoiling what was otherwise a most pleasant expedition.

We landed for a meridian altitude, and improvised an artificial horizon by means of a bucket of water. The banks were low and flat, and frequently intersected by muddy creeks, while the birches and firs had almost disappeared, giving place to the willow and wild cherry. I have rarely seen more impassable ground than that close to the river. The coarse grass rose high around us, preventing the possibility of seeing anything—a condition which obtains in almost every part of the country; but an additional and far more effectual barrier to our progress existed in the shape of a thick tough brushwood which clothed the irregular ground with a network of small boughs, catching our feet firmly at every step. Later, at Cape Shipunsky on the south-east coast, we found the country even more impracticable. The bears, however, manage by their great weight to force themselves through this thick cover with little apparent difficulty. Just inside the forest, at a distance of six or eight feet from the river-bank, is a firmly-trodden path some two feet in width, made entirely by these animals; and as these paths are to be found without a break on either side of the river in its whole course through the forest country—a distance of about 500 miles—it will be understood why bears' skins do not command any very high price in the peninsula.

The procuring of a sufficient number of duck for our daily needs became at this period a rather difficult matter, the main river being deserted by them for smaller streams and marshy pools in its vicinity. Sea-birds became more numerous; a tern (*Sterna longipennis*), two or three phaleropes, or the Red-throated and Black-throated Divers (*C. septentrionalis* and *C. arcticus*), were to be met with from time to time. We also shot a *Podiceps*, which seemed to be identical with our own Red-necked Grebe.[1] On the banks an eastern form of the Pied Wagtail (Kittlitz's *Motacilla lugens*) was extremely numerous; the Yellow Wagtail much less so. But of all the land birds the Kamschatkan Marsh Tit (*P. kamschatkensis*) was at this part of the river by far the most abundant. For two or three days we saw them in flocks of from fifty to a couple of hundred individuals, streaming northward along the bank from tree to tree.

[1] According to Mr. Seebohm, the eastern form of *P. rubricollis* is conspicuous for its larger size, and especially for the greater length and stoutness of the bill; and the measurements of the above-mentioned specimens certainly bore this out.

Shortly after mid-day we passed the mouth of a river joining the Kamschatka on the right bank. The natives knew it as the Kojerevska. It is a stream of some size, being apparently of considerable depth and having a breadth of forty yards at its junction with the main stream. As far as we could gather, it drains the opposing slopes of the Tolbatchinska and Kojerevska volcanoes.

We reached the little hamlet of Kojerevsky at nightfall. The distance from Tolbatchik, the scene of the last rows we had had with the natives, is only ninety-one versts instead of two hundred, and we might with perfect justice have reduced our payment to half of the sum we had promised. But, to tell the truth, we had become so wearied of the endless wranglings in which we had been involved in all our dealings with these wretched people that we paid them without a word. It was better to let them think that they had deceived us than for them to imagine that we had weakly yielded to what we knew to be an imposition. We were pleased to find that the Kojerevskans exhibited strong evidences of their Kamschatdale descent. We were received by the head-man, a little brown fellow with bright eyes; and under his direction the people did everything in their power to help us, carrying up our baggage, bringing us wood, and altogether showing us an amount of civility that was as new to us as it was agreeable. They provided us with wild cherries, cranberries, potatoes, turnips, milk, cream, and butter, and last, but by no means least, with a loaf of coarse rye bread, which, we heard, had been specially prepared for the Kluchi pope, who had been expected to pay the settlement a visit. We felt that we had got among friends once more, and managed by the aid of all these luxuries to pass a very pleasant evening, in spite of the cold. At night the beacon flame of Kluchi, now brilliantly illuminating the clouds of smoke that hung around the crater, now sinking almost to extinction, shone out far above our heads. There was an angry look about the volcano, and we were told that its activity had of late been somewhat increased. The explanation was simple. The Kanuli, or Spirits of the Mountains, whose home is in the bowels of the volcanoes, had merely been more fortunate than usual. It is hardly necessary, in these days of omniscience, to explain that it is to these beings that all volcanic disturbances are due. They go to the sea at night to catch whales, which are their favourite food, and the roasting of several of these animals within the crater is, as may be imagined, an operation which requires the consumption of no inconsiderable amount of fuel.

The weather had become steadily colder from day to day, and as we turned out on the morning of the 11th September we regretted that the Spirits of the Mountains had not seen fit to do their cooking in closer proximity to our camp. Our moustaches were frozen to the blankets, and the water in the bucket inside our tent was a sheet of

ice. Morning observations and photography are always interesting, but they are certainly best appreciated when the thermometer is well above freezing. The view from our camp was glorious, and the mountains, cloudless from base to summit, towered above us with the startling clearness of outline so characteristic of northern regions. Kojerevsky—a village of ten huts and sixty-three inhabitants—lies at the foot of Uskovska, a mountain of nearly 13,000 feet, whose summit

FOX TRAP.

from this aspect presents the appearance of a uniformly rounded dome of snow. It is in reality twenty-three miles off as the crow flies, but the giant scale on which Nature works in these regions belittles space to an extent that is inconceivable, until the hard facts of actual measurement are before one. A little farther to the south and east is Kluchi, whose sharp peak rises to a vertical height of $3\frac{1}{4}$ miles above the river, guarded on the right by Kojerevska, which is inferior to it in altitude by fifteen hundred feet. To the extreme right lies Tolbatchinska, and above the intervening stretch of flat forest land the solitary peaks of the two isolated volcanoes I have before mentioned are visible some fifty miles away.

We had but little difficulty in getting the canoes requisite for constructing our raft upon somewhat less risky principles than the one that had, thanks to our good fortune, borne us the last seventy miles of our journey in safety. We reverted once more to our old plan of dividing forces, and late in the morning recommenced our voyage amid the firing of many salutes from the guns of the Kojerevskans, to whom we were really sorry to have to bid adieu. At 4 P.M. we reached Uskovska, a hamlet containing thirty souls only. Landing to rest, we noticed here, for the first time, a fox trap of simple construction, which is said nevertheless to be very effective. A broad mortice is cut in an ordinary rough log, and in the longitudinal hole thus produced a spring is placed composed of two pieces of raw hide twisted together, which impels a barbed prong. This is discharged by means of a trigger, to which a string is attached leading across the animal's usual track. Although Kamschatka is a country which would appear to be peculiarly adapted for trapping, it seemed to us that it was not undertaken to anything like the extent that might be expected.

We camped eighteen versts below Uskovska, in good spirits at the improved condition of our affairs and our rate of progress down the river. We had need of them, for after dinner, on inspecting our last case of photographic plates, which had been packed with all possible care in blankets, we found that the greater number of them had been broken to atoms. Such are the results of pack-horse travelling! Of the whole lot but two remained, and these, with one or two we had left over from another case, were all we had to last us for the rest of our journey! It was a cruel disappointment. We were in the midst of scenery which for magnificence was almost without parallel, and which we could never have a hope of seeing again. For some days the volcanoes, which at this season of the year are often invisible, had shown themselves without a cloud. And now, just as we were approaching them, and arriving at the very part of our journey of which we most desired to have a record, we were doomed to failure—a failure the harder to be borne from the fact that our limited time precluded any possibility of sketching.

It was blowing hard from the W.S.W. as we embarked at daylight on the following morning, and before long the wind had freshened considerably. The thermometer was not lower than usual, but the keen wind penetrated our garments and froze us to the bone. It was in our favour, and hoisting a portion of one of the tents as a sail, we sped along merrily. Soon, however, it became evident that we could no longer continue our journey. Everything is comparative; and to our craft, with its low free-board and heavy load, the three-inch waves became more formidable than the heavy seas in a gale in "the Bay" appear to an ocean steamer. It would have been too absurd to founder in such a

tea-cup storm, so we made for the shore, and set to work to cut down trees till we had to some extent restored the circulation in our limbs. An hour or two later the wind dropped, and we were able to proceed. We noticed the signs of some old forest fires near this spot, but they seem, happily, to be very rare. In Scandinavia, in a journey of the length that ours had been, we should have seen fifty or more. Here the great precautions that are taken against their occurrence are no doubt the chief reasons for their infrequency. Our hunters told us that sables do not return to these spots for many years after, even if the forest has been but slightly injured by the fire.

Late in the afternoon we passed the hamlet of Kristovsky, or Kristi as it was called by our men, and a few versts farther came upon some people encamped upon the banks. It is curious how little the rivers are used as highways either during the winter or summer. The natives can hardly be said to travel at all, excepting in their winter excursions after sable. This was only the second party we had seen away from the settlements, and we were told that no one had passed down the river from Melcova that year. We shouted greeting as we passed, but there was no time to stop, as we wished to reach Kluchi that night. Our Kojerevsky men worked their paddles with a will, and before long we reached the mouth of the Yelofka River, a large stream, eighty yards or more in width, which joins the Kamschatka on its left bank. It flows due south, draining the western slopes of the great Sevelitch volcano, and is used as a road to Tigil, a settlement on the river of that name in the north-west part of the peninsula, which is, or used to be, a trading station of some importance to which the Koriaks and Tchukchis bring in their furs for sale. The river is ascended by canoes for fifty or sixty miles, the watershed is then crossed by a march of two or three days' duration, and the traveller, striking the upper waters of the Tigil, reaches his destination by canoe.

At or about Kristovsky the Kamschatka, whose direction, roughly speaking, has been due north, bends suddenly to the east, and circles round the base of the stupendous volcanoes that guard its mouth. The aspect of the peaks alters considerably. Were not such a thing almost impossible, one would say that the scenery had increased in its sublime magnificence. Uskovska, Kojerevska, and Kluchi alone are visible, and of the two latter it is hard to say which is the finer. Kluchi is, and had been from every point from which we had hitherto beheld it, a cone of absolutely perfect shape, and Kojerevska is but little less regular in its outline. Now, as we advanced, the base of the latter was hidden in dense cloud, but its summit—a peak of extreme sharpness—stood out bare against the sky, the northern face a vertical wall of black rock on which no snow could rest. The river here is much increased in size, and is from three to four hundred yards broad. The depth is

very uncertain, varying from a mere shallow intersected with deeper channels to twenty feet or more.

A few versts above the village of Kluchi four canoes pushed out from the banks and joined our party. Fully one-half of their occupants were women, who seemed to use the paddle with as great dexterity as the men. The boats were laden almost to the gunwale with the Kisuchi salmon, almost all of which were in good condition, though some had the peculiar rounded snout developed to a most extraordinary extent. One of the women—a most repulsive-looking creature—was dressed in man's clothes, but another had distinct pretensions to good looks, and ranging her canoe alongside, was soon deep in a flirtation with Afanasi, of whose reputation as a lady-killer we had all heard. The sun was setting as we rounded a corner, and came in sight of the village, its smoke hanging as a blue haze in the still evening air. To our left the Harchinska Mountains, furrowed with deep gorges, looked almost black against the amber sky. The huge cone of Kluchi caught the last rays of the sun and flushed a pale pink, while at the lip of the crater a fleecy puff of smoke hovered for an instant as if in doubt, and then floated out a long thin streamer to the east. Around his shoulders hung a thick belt of cloud, gathering rapidly with the fast-approaching night, and beneath, slope after slope rose steadily up to meet the pyramid above. Kojerevska showed here and there a patch of glistening snow through rifts in the dense veil that hid him from our sight, and on the lake-like surface of the river below our little fleet of boats paddled merrily homewards to the rough and mournful cadences of a Kamschatkan love-song. Suddenly the flame of the first salute shot out from the other raft, the signal for a general fusillade. It was answered by a flash and a report from the village; and a little later we stepped ashore at Kluchi, and were welcomed heartily by the head-man and a little crowd of the inhabitants.

The morning of September 13th broke with hardly a cloud; and the view of the mountains, which now lay nearly due south of us, was so magnificent that I did not hesitate to devote one of my last plates to it. We crossed the river in a dug-out, and landed on a sand-bank near the opposite side. The stream is here six hundred yards in breadth, and forms a fitting foreground to the picture. Behind the village, whose weather-worn huts line the banks for nearly a quarter of a mile,—for Kluchi may be regarded almost as a city in this part of the world,—the even slopes of ruddy vegetation rise smoothly upwards, till, at the height of two or three thousand feet, the snow is reached. The outline of the mighty volcano was as perfect here as before, and its exquisitely graceful slope as unbroken. Near the summit, on the side immediately facing us, a deep furrow, as yet untouched by the rays of the morning sun, showed the remains of some past eruption—a huge

KLUCHEFSKAYA VOLCANO (16,988 FEET). Page 124.
(From the North.)

scar which the snows of many winters had done their best to obliterate. From the crater light puffs of smoke drifted slowly away to the east, far whiter than the snow which lay below, for on all sides, and especially near the summit, a sprinkling of ashes had dulled its purity almost to a gray. The rounded half-dome of Uskovska to the west showed a vast field of unbroken snow, and on the side towards Kluchefskaya appeared to have been completely blown away by some great eruption in past years, leaving a huge open crater, the western walls of which alone were standing. The upper part of these, which was all that we were able to see, seemed to be almost vertical upon the inner face. Between the two mountains was a lesser cone, which, like Uskovska, appeared extinct. To us it was known as little Kluchi, though whether we obtained this name from the natives or not I do not now remember.

The opportunity was an excellent one for taking further observations on the heights, the river forming a good base. We accordingly took advantage of it; and from the results of this and other work the following may be given as fairly accurate altitudes for the four chief volcanoes lying to the south of the lower part of the Kamschatka River :—

Kluchefskaya	16,988 feet.
Uskovska	12,508 ,,
Kojerevska	15,400 ,,
Tolbatchinska	11,700 ,,

Mount Gordon and Mount Herbert Stewart—the two volcanic cones lying to the south-east, to which I have alluded on a previous page—are probably both about 8000 feet in height.

It was late when we returned to breakfast, and found a visitor awaiting us. He was a poor old fellow nearly seventy years of age, who had spent three-and-thirty years of his life in this one spot, acting as a sort of doctor. What diplomas, if any, he possessed I do not know, but he seemed to have had sufficient ability at some remote epoch of his existence to have forgotten something. Half in dog-Latin, with a word or two of English, and half through Jacof and Afanasi, he gave us some few scraps of information. It seemed that three years previously—in 1879—an eruption of Kluchi had occurred. There had been no previous warnings, although the mountain is always more or less in a state of activity, but on the morning of August 14th, dense clouds of smoke appeared above the crater, and at mid-day the sky was as dark as night. Before long ashes began falling, and in a few hours the ground was covered with them to the depth of three inches. There was no earthquake, but, on the following morning, a small stream of lava poured from the lip of the crater on the north side. It descended but a short distance, however, and, shortly after, the mountain returned

to its usual state of threatening quiescence. With this exception there have been no eruptions within the memory of man, or at least none of any magnitude. A few ashes often fall, and had done so not long before our visit, but the recent falls of snow had done much to hide them.

Kluchi appears to have been still more active in the middle of the last century. Krasheninikov, in the work I have mentioned, says that "it throws out ashes twice or thrice yearly, and sometimes in such quantities, that for 300 versts around the earth is covered with them to the depth of a vershoke (nearly two inches). From the year 1727 to 1731 the inhabitants observed that it burnt almost without interruption, but they were not under such apprehensions as in the last conflagration in the year 1737. This terrible conflagration began the 25th of September, and lasted one week with such violence, that to the people who were fishing at sea near the mountain it appeared one red-hot rock, and the flames which burst through several openings sometimes showed like rivers of fire with a shocking noise." On the 6th of October there was an earthquake of tremendous violence in the Avatcha district and the southern point of Kamschatka; regions which, it should be observed, lie in a direct line between Kluchi and the volcanic chain of the Kuril Islands. An enormous tidal wave occurred, "overflowing the shore 200 feet high," and killing many of the inhabitants; but the country in the immediate neighbourhood of the volcano did not appear to suffer much, although a violent earthquake was experienced at Nischni Kamschatka on the 23d of the same month.

In 1762 and 1767 outbursts again occurred, though of very much less severity, but subsequent to that time no accounts of other eruptions have, as far as I am aware, been published, with the exception of that of Professor Adolph Erman, who, in 1829, found the peak in "picturesque and sublime activity, and approached the burning lava, which poured forth in a continuous stream," till he reached the height of 8000 feet above the sea.[1]

Upon the northern side of the Kamschatka River, 59 miles N.E. by N. of Kluchefskaya, rises the irregular mass of Sevelitch, of which we had hitherto seen but little. Its height is probably between ten and eleven thousand feet, but we were not able to take any measurements to correct this estimate. It is highest and most conical at its eastern side, and at the time of our visit was sending forth considerable volumes of smoke, which appeared to come from a crater low down on the south-west aspect, but owing to the extreme irregularity of the mountain, it was difficult to ascertain its exact position. Nothing indeed can be more striking than the difference between this volcano

[1] "Journal Roy. Geogr. Soc.," vol. ix. p. 509. In the map accompanying this letter, Uskovska is placed some miles to the south of its real position.

and Kluchi. The latter, with its wonderful steepness of slope and its unbrokenly conical shape, is probably one of the best instances that could be given of a mountain that owes its entire height and form to the slow piling up of the ashes and lava ejected from its crater. But in Sevelitch it is evident that the method of formation has been very dissimilar, and not of gradual occurrence, excepting as regards the secondary craters that have formed on the original mass. Hr. Erman, who passed several days on the mountain and the plains below, regarded it as having been forced from beneath the surface at a single

SEVELITCH VOLCANO, FROM THE SOUTH.

eruption, since its bulk was composed of crystalline rock "resembling lava as little as the granitic rocks of the Alps." It would seem as if some giant power had upheaved the thin crust of the earth's surface, and that through the openings thus formed the liquid rock had poured, retaining the uptilted fragments in their new position.

About nine months after our departure from Kamschatka a series of eruptions appear to have taken place, which in grandeur must have rivalled those described by Krasheninikov in 1737. Of these no particulars seem ever to have been published, for two years later the very fact of their occurrence was unknown both to the Royal and Royal Geographical Societies. But, from the fact of their having been synchronous with the terrible catastrophe at Krakatau, they present

features of such interest that I here quote the cutting of the "Japan Gazette," to which I am indebted for the only information I can obtain upon the subject :—

"THE JAVA ERUPTIONS.—We are indebted to Mr. T. R. Green, who has just returned from a prolonged journey in Northern Asia, for some highly interesting information respecting volcanic disturbances in that region. The particulars given, taken in connection with the recent volcanic eruptions in Java, seem to indicate that the active agency extended over an immense area. The disturbance of Mount Krakatau began early in August last, culminating on the 26th. At the beginning of July a cone, from 8000 to 10,000 feet high by estimation, not marked on the chart, but situate near the Kamschatka River, supposed to be inactive if not entirely extinct, suddenly split in two, emitting immense quantities of lava, which poured down its slopes. This phenomenon was not, however, accompanied by any very great local disturbance. Mount Siveluch (of Keith Johnston's map), the highest peak of the Kamschatkan range, 17,000 feet high, was in active eruption throughout the whole month of July, the pillar of flame in calm weather being distinctly visible at distances of from 200 to 250 miles; giving, after allowance for refraction, an altitude above the summit of the cone of 8000 to 10,000 feet. When the air was still, smoke, steam, etc., rose vertically to an elevation of 15,000 feet, where, meeting with a northerly air current, it abruptly took, at right angles, a southerly direction in a thin direct line. Captain Hubbard, of the M.B.S.S. *Toyoshimamaru*, recently described an eruption which took place at Shibotaru, one of the Kuriles, in the early part of June last. A copy of his letter addressed to Professor John Milne was, by the kindness of the latter, published in the 'Japan Gazette' of 30th June. Mr. Green further states that in April last the ice in the neighbourhood of the Kuriles was discoloured with volcanic ashes for miles in every direction, indicative of eruptions of unusual violence, probably in the north, but of which we have no note. Mr. Green was enabled to make some very interesting observations on cloud formations in the vicinity of the Kronotsky Peak. He describes this as, perhaps, the most perfect cone in the world, because it tapers to a fine point, and is of greater elevation than Fujiyama. At 2 A.M. to sunrise it would show perfectly clear and distinct from the sea like an unplumed cocked-hat. As the sun rose the snow would soften, evaporation no doubt begin, and mists would slowly gather around the summit, giving the mountain the appearance of a gigantic plumed field-marshal's cocked-hat. At daylight on the next morning there was not a vestige of the plume, but the process of its formation proceeded with unvarying regularity. This information will probably attract the attention of the Seismological Society. There certainly now seems an opportunity rarely offering for collecting and digesting the data respecting recent volcanic disturbances which should be availed of."[1]

[1] The above paragraph needs explanation. What the "cone not marked on the charts, but situated near the Kamschatka River" may be it is impossible to say, but by "Mount Siveluch" there is, I think, but little doubt that Kluchefskaya and not Sevelitch is meant.

Kluchefskaya and his fellows have led me into a longer digression than I had anticipated, and I must return to the poor old doctor who, had we been better acquainted with his language, would doubtless have proved an interesting companion. He told us that we were the first travellers he had ever known to come down the Kamschatka River. We appeared to be a source of almost childish delight to him, and his pleasure was still further increased by discovering a professional brother. He was becoming blind he thought, and asked me to look at his eyes, which showed signs of advancing cataract. Operation would have been inadvisable at the stage they were in, and I told him that I feared I could do nothing for him. He kissed my hand and raised it to his forehead, saying that it was of no consequence, and that he loved all doctors, no matter of what nationality. There is a law against selling liquor in the interior of the country, and his eye glistened half with sorrow, half at the aspect of a bottle of Hennessey that stood at hand. We offered him a glass, and it disappeared as if by magic, and as he made his bow and *do suidania*, he absently helped himself to another bumper. He had asked me to go with him to his house, as he had a present for me. On arriving we found his granddaughter, a pretty little child of five or six, playing with a young blue hare which lollopped up in a most confiding way to have its ears scratched. This was the present, but it was evidently such a pet of the little girl that it would have been a crime to have taken it. The old gentleman, however, apparently wished to make some return for a lancet I had given him, and was rather disappointed at my refusal until he suddenly bethought himself of a skull of a Kamschatdale, which he had found laid bare by a flood at one of their ancient burial-places,—a treasure that I joyfully accepted.[1]

We had taken up our quarters at the house of the head-man, and on my return thither I found that the pope had arrived to pay us a visit. His appearance was not prepossessing, and unkempt hair, a very fully-developed squint, and a total absence of conversation rendered him decidedly uninteresting as a companion. But he brought us two remarkably fine cabbages as a present, for which unaccustomed luxury we felt very grateful. We learnt that there were only nine priests or popes in the whole of Kamschatka. Like the doctors, they are paid by the Government, but they also receive tithes in kind from the people. They come for the most part from Siberia, and socially rank little, if at all, above the peasantry. This gentleman, for example,

It is evident that Mr. Green did not himself visit the neighbourhood of the great volcanoes, or he would not have described the Kronotsky Peak as the most perfect cone in the world. The height of this mountain, which lies immediately to the east of the lake of the same name, is given by Findlay as 10,610 feet, while that of Fujiyama has been variously estimated at from 12,234 to 12,365 feet.

[1] *Vide* "Journal Anthrop. Inst.," vol. xvi., No. 1, p. 21.

had married the sister of one of the horse-boys we had brought with us from Petropaulovsky to Sherowmy, who had been sable-hunting with Jacof Ivanovitch at the Kronotsky Lake during the preceding winter. We called on her to thank her for the present, and found her a homely little woman with a much larger fund of conversation than her husband. On leaving the house a grey-bearded old man rushed out upon me, seized and kissed my hand, embraced me, patted me on the back, and poured out a torrent of unintelligibility which led me to the extremely English conclusion that he was drunk. I had wronged him. Afanasi was at hand, and gave me a *précis* rendering of his speech. He was merely expressing his delight at meeting with a European traveller!

The doctor had arrived to pay us another farewell visit when I again reached our house. We had many attractions for him; some of them in bottle. Poor old fellow; his sorrow at parting with us was too much for him, and when we turned round and discovered the Hennessey at the lowest ebb, it gave us almost pain to have to sign to Louis to remove it.

Our original intention had been to leave Kluchi in the forenoon, but many things conspired to prevent it. We had bought some of the little birch-bark barrels that they make so cleverly throughout the country, and there was a great discussion as to whether we had paid for them or not,—easy to be explained by the fact that the inhabitants of the village are the descendants of Siberian Russians brought from the River Lena, and settled here about the year 1735. Wearied with the constant recurrence of these impositions, I wandered out at the back of the village to inspect the fields, which are of larger extent here than in any other place we had yet visited. Rye is cultivated, though apparently not to any very great extent, although the valley of the Kamschatka is said to be the only place where there is any chance of its ripening. It is sown in the middle of May, and the harvest, when there is one, is at the middle or end of August. Potatoes and turnips were grown in some abundance, but there was little else in the way of cultivation except a few poor attempts at garden produce. The catholic tastes of the sledge-dogs prevent the inhabitants from keeping the smaller domestic animals, but cows are numerous, and almost every house had poles placed around the front to keep off these animals, which are permitted to wander about at will.

The discussion on the birch-bark barrels had subsided on my return to the house, but we found that our landlord had inserted the pope's cabbages in the bill—or what would have been the bill did such things exist in the country—and more difficulties arose before we finally got afloat. At the last moment the doctor again appeared, with two boxes and a loose razor which he begged us to take to his son in Petropaulovsky. In his hand he bore the Kamschatdale skull, reverently

tied up in an old handkerchief. We paid our landlord, and included the pope's cabbages; we paid twice for our birch-bark barrels; we slung up the skull at the back of our hut; and bidding *do suidania* to the united population of Kluchi, who were drawn up on the bank to watch our departure, we paddled out into the current, and in another ten minutes the village was lost to view.

In Findlay's "North Pacific Directory" it is stated, though upon what authority is not clear, that the Kamschatka River "is said to be capable of admitting vessels of 100 tons about one hundred and fifty miles up the stream." This, however, is not correct, or at any rate is very misleading, for the river is beset throughout with sand-banks which in many places apparently lie completely across the stream. Thus, opposite Kluchi village there was only an average of seven feet of water, while both above and below we got depths of twenty or thirty feet and more. The sand-banks also are very unexpectedly placed, and the navigation of the stream by a large vessel, even if possible, could only be accomplished by the aid of an elaborate system of buoys, which, I need hardly say, is not likely to be instituted for many a year to come. From some versts above Kluchi to the mouth of the river, except at the Tchoaki or narrows, to which I shall have occasion to refer presently, many islands are formed by the bifurcation of the stream, some of them of large size, and the river increases considerably in breadth. Opposite the village it is said never to freeze entirely over, a fact the people attribute to the existence of hot springs in the river bed. They also told us that salmon remain here throughout the winter, though not in any great numbers.

Among these islands there appeared to be more duck than we had been lately accustomed to see in the lower part of the river, and we here obtained the Shoveller (*S. clypeata*) for the first time. Landing to replenish the larder at some small lakes towards the hour of sunset, we remarked both snipe and wild geese, neither of which we had previously met with, but it was too dark to distinguish the species. Verglaski followed us on occasions such as these with the stolid expression and steady gait he always affected. Nothing short of a bear, I believe, ever roused him to any less dignified pace than a walk, and as he slowly followed us, I had a lurking suspicion that he regarded our occupation as a rather childish one. I had too much belief in his moral character to attempt to account for his peculiarities by any such physical reasons as "the rheumatics" —a cause that one of us profanely suggested. As a retriever he was inimitable. We had shot a duck that fell far out into the shallow lake, and while looking at it, and calculating the possibilities of its drifting ashore, Verglaski came up and realised the situation. He glanced at us in a way that said plainly, "This is not my business, but if you will wait here, I will see if I can get it out for you," and proceeded to do

so with a three-yards-a-minute pace, and a concentration of purpose that was irresistibly ridiculous. Poor old dog; it was the last service he ever rendered us.

We had contemplated sleeping on the rafts, and continuing our journey through the night, as the river is at this part free from dangers, but as it would have made it impossible for us to go on with our observations, we eventually decided not to do so. We accordingly paddled on until it was too dark to see, and making the rafts fast to the bank, slept as well as we could at the bottom of the canoes, so as to be in readiness for starting at dawn upon the morrow. In the way of saving time the experiment was successful, and we were off again at 4.45 A.M., reaching the hamlet of Kamakoffskaya after three hours of steady paddling. Just before arriving we awoke to the distressing fact that Verglaski was not with us, and as no one had seen him since leaving the camp of the previous night, there was but little doubt that he had been left behind. Jacof at once borrowed a canoe and went in search of him, hoping to catch us up before nightfall. Meanwhile we had breakfast and inspected the village, which, in spite of its imposing name, is a miserable, bleak-looking place, with a population of barely fifty. Perhaps it is with some latent feeling of modesty that the inhabitants have shortened Kamakoffskaya to Kamaki. The day was wretchedly cold and gloomy, and the aspect of two half-starved Kamschatdale children, clad in a tattered rag of furs, who sat shivering on a rotten old canoe which lay half-buried in the mud, did not serve in any way to render it less depressing. The village appeared nearly deserted, and as there was nothing to detain us we resumed our journey without loss of time. Before noon we arrived at the Tchoaki (lit. cheeks). These are narrows about seven miles in length where the river passes through a range of hills from two to three thousand feet in height. Both entrance and exit are very sharply defined, and the stream, which above and below is about eight or nine hundred yards broad, is here narrowed to between three and four hundred. The scenery is decidedly picturesque after the monotonous miles of willow-lined banks that weary the traveller's eye in the lower part of the Kamschatka; and we were reminded somewhat of the Iron Gates on the Danube, which geographically—I do not say geologically—the Tchoaki closely resemble. But the former are on a grander scale, and the river here, in spite of its contracted width, exhibits none of the tumultuous rush of water which makes the passage of the Iron Gates so difficult to a Danube steamer.

In the Tchoaki we met two or three canoes coming up from Nischni Kamschatka, and learnt from them that a schooner, painted white, and with a steam launch, was lying at Ust Kamschatka—the settlement at the mouth of the river. This was a piece of information which astonished us considerably. That there should be a ship of any kind

there other than the *Marchesa* was most improbable, for, as they told us, she was the first vessel that had visited the river for three years. More improbable still was it that she should be a stranger when the fact of her being painted white was taken into consideration, while the existence of a steam launch seemed finally to put the matter beyond a doubt. But on the other hand, the fact that she was said to have arrived many days before was greatly against it, and as the bar was very shallow, it seemed hardly likely that the *Marchesa*, with her draught of fifteen feet, would be able to cross it. The natives could not give us any further information, as they had not seen the vessel, and we were left in a state of doubt which no amount of discussion helped to enlighten.

Emerging from the eastern entrance of the narrows we found ourselves passing through a flat, uninteresting plain which extended as far as the sea. Here the scenery is scarcely more interesting than at the mouth of the Thames. A cold wind swept over the dreary reaches of the river, and behind us an ink-black sky gave warning of approaching bad weather. At 4 P.M. we passed Nischni or Lower Kamschatka, once the capital of the peninsula, a village of some importance with twenty houses and a church, and a population of 150. It lies a little way off the main river upon a smaller stream, and just opposite, upon the other bank of the Kamschatka, the Raduga, a river about forty yards wide at its mouth, flows in from the south. A canoe shot out to intercept us as we passed, bringing a letter for Petropaulovsky from the Kluchi pope, who had left that village just before us on the preceding day, and shortly afterwards we saw another boat paddling hard after us. We stopped to let it approach, and soon recognised Jacof, whose gloomy face told us that Verglaski had not been found. He had apparently gone down the river for some distance, and had then turned back and proceeded towards Kluchi. Here the track had become obliterated, and Jacof had been obliged to give up the search. Poor old Verglaski; his quiet methodical ways had endeared him to all of us, and Jacof was much distressed at his loss. In the summer he would have had no difficulty in finding enough to subsist on, but at this season hardly any fish were left, and the settlements being so far apart, and upon the other side of the river, it was more than doubtful if he would ever have a chance of reaching one of them.

Paddles were once more resumed, and we were discussing the advisability of proceeding to the mouth of the river without stopping, when we perceived the smoke of a steam launch in the distance. By our glasses we soon made her out to be a stranger, and all doubts as to the arrival of the *Marchesa* were thus at an end. She proved to be the launch of the walrus-schooner *Nemo*, bound to Nischni Kamschatka. She had on board the first officer—a Swede—an agent of Mr. Phillippeus the fur-trader, and a crew of four Japanese. They told us that nothing had

been seen of the yacht, and could give us no news of the civilised world, having been for some time lying in the river; so, after wishing them *bon voyage*, we continued our journey.

PALLAS'S EAGLE. (*Thalassaëtus pelagicus.*)

Since leaving Kluchi we had spent a good deal of time in trying to obtain a specimen of Pallas's Northern Sea Eagle (*Thalassactus pelagicus*) —a species which, at this part of the river, is by no means uncommon. It is a magnificent bird, and is especially conspicuous from the large white shoulder-patches and tail, but owing to its shyness it is extremely

difficult to approach. We were, unfortunately, not provided with a rook rifle, and the few long shots we obtained were unsuccessful. Once only did we get a bird fairly within shot, and the two barrels of No. 2 that he received at a distance of thirty yards seemed to have no effect whatever upon him. This eagle appears to be chiefly confined to the lower part of the Kamschatka River, for we did not meet with it before reaching the neighbourhood of the great volcanoes.

The natives are prevented by law from barring the river in the lower part of its course, and here the salmon are taken chiefly with seine and drift nets. The V-shaped curral-trap of stakes, with baskets on the lobster-pot principle, is also frequently seen; a system which, as I have already stated, is used to bar the river right across at Melcova. The fat of the Kisuchi salmon is regarded as a great delicacy, and is prepared in considerable quantities at this season. A canoe is filled with water, and a number of the fish placed in it. Into this large red-hot stones are dropped, thus boiling the contents, which are meanwhile constantly stirred. The fat is then removed as it rises to the surface.

The low and muddy shores of the river in this part of its course are in many places intersected with small creeks, at the mouths of which two tall poles may often be noticed. These are used for taking ducks at flight time, by a plan which is not uncommon in other parts of the world. A fine net is hung between the two poles, which the hunter lets fall as the birds fly against it. By this means we were told that large numbers are often caught.

We woke on the morning of September 15th to a most miserable day. We had not dug the trenches round our camp unnecessarily; the rain was coming down in torrents with a bitter wind, and we deferred our start till nearly noon. After four hours' paddling, the river, which here averages from twelve to fourteen hundred yards in breadth, widens still further opposite to the entrance of the arm leading to the Nerpitchi Lake, and sweeps round sharply to the south. Just beyond lies the village of Ust Kamschatka, in the dreariest situation it is possible to conceive; and here, cold and tired, we pulled up at 5 P.M. and established ourselves in a comfortable little hut belonging to Mr. Phillippeus, the fur-trader. Our journey was practically at an end, for we were but four miles distant from the bar at the mouth of the river.

A small look-out tower is built a little to the south of the village, and we at once ascended it to see if there were any signs of the *Marchesa*. Nothing was to be seen at first, but before long we made her out approaching from the south; and thus, after an absence of a month, we had hit off the time of meeting with an exactness as curious as it was fortunate. We were anxious to get off without delay, and the captain of the *Nemo*, with whom we had made acquaintance, offered to take us. We were soon afloat in his whaler, which was manned by a

Japanese crew, and with the oars double-banked, we got over the water at a pace that was somewhat different to that to which we had been accustomed on the rafts. As we neared the river's mouth the thunder of the surf was not reassuring, and we landed to reconnoitre on the left bank, where the river, making a sharp turn before debouching into the sea, runs close to and parallel with the beach. Our men, who had preceded us with the baggage, had made a large fire of drift-wood, of which we were glad enough to take advantage, for our teeth were chattering with the cold, and the rain had recommenced. But what we could see of the bar through the darkness was not such as to induce us willingly to attempt it, and we at once decided to return.

The captain of the *Nemo*, who was a Swede, and spoke English with perfect fluency, enlivened our row home with his accounts of Saghalin, from which island he had just come. It is now a Russian penal settlement, which is only used for criminals of the worst kind. The discipline adopted, according to his account, was of extreme severity, and many of the prisoners preferred to take their chance of escape, and the almost certain risk of death by starvation in the bush, rather than endure it. In one case he mentioned, two of these unfortunate wretches escaped. One was caught almost immediately, and the other returned of his own accord at the end of some days, nearly dead from starvation. He was fed up until he recovered, and 100 lashes were then administered every day until one of the men died.

In Ust Kamschatka, it is hardly necessary to say, there are neither gas lamps nor pavements,[1] and the state of the paths about the settlement—if paths indeed they can be called—is indescribable at this season. The captain, who was as good an amateur doctor as he was a Samaritan, had asked me to come and see a sick woman he had been looking after, and we accordingly started at once in search of the hut. It was by no means easy to find it, and we stumbled about over stones and through swamps for some time in vain. In one of the latter my companion lost his boot, and though we expended all our matches in hunting for it, we never saw it again, and he had to see his patient in a condition that was, to say the least of it, unprofessional.

We had been bidden to a feast in the evening. To have one ship in the port was rare enough, but the presence of two was so unprecedented that it was felt that something must be done to commemorate it. A ball was accordingly resolved on. The Swedes sent various intoxicating drinks, as became their nation, and the supper-table groaned with Kamschatkan delicacies—cranberries, brick-tea, and cold ducks. The ballroom was not lofty, and the two Swedes, who stood about six feet three in their stockings, had their heads among the dried fish and other

[1] Perhaps I may be wrong. I was once asked by a lady, in all seriousness, if the hotels in New Guinea were tolerably good!

THE DANCE AT UST KAMSCHATKA.

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odds and ends hanging to the rafters. A number of empty bottles served in lieu of candlesticks, and the illumination was conducted on a scale that must have appeared little short of reckless to the Kamschatkans, to whom a candle is an expensive luxury. In one corner was stationed the band—an old fiddler, who, if hardly up to the latest Strauss or Gung'l, was nevertheless able to give us the dance-music most in vogue at Ust Kamschatka for an uninterrupted period of six hours.

All the rank and fashion of the village were present. Around the room sat fourteen individuals of what, in Europe, is termed the fair sex. Here, I regret to say, they were so only in name. No mean advantage, such as is obtained from the combined effect of champagne, wax lights, and gauzy dresses, had been taken of the unsuspecting male, and it is curious how little false glamour is thrown over an object by the aid of cranberries and corn brandy. We gazed around the room and felt that for once our hearts were safe. Our partners were—dare I whisper it? just a wee bit fishy. Blush not, fair reader; the papas and mammas of the young ladies were there to chaperon them, and the dance was everything that was proper and correct, but Kamschatka is Kamschatka, and in lieu of the suspicion of "White Rose" or "Ess" of western civilisation, an *extrait double* of dried salmon lent its not uncertain perfume to the ball-dresses of our partners.

We performed our duty to society by going round the room and solemnly shaking hands with everybody, which, we were told, is the correct thing upon these occasions; and then, posting ourselves in the doorway, we took stock of our surroundings before embarking upon the serious business of the evening. The whole of the *Nemo's* party were present. Above them all towered R—— the captain, and his first officer, who had been a lieutenant in the Swedish navy, and was one of the handsomest men I ever saw. The seal-hunter attached to the schooner, a Hudson's Bay man, was conspicuous for the lively colouring of his hair, the effect of which he had considerably heightened by a bright green tie. Long pursuit of his quarry, and the conviction of the hollowness of all earthly pleasures with the exception of rye-spirit and tobacco, had given him an almost preternatural solemnity of expression, and oblivious to the charms of his partner he shuffled round the room with a calm consciousness of the excellences of seal-hunters as exemplified in his own person which evidently produced a great effect among the ladies. The walrus-hunter, his companion, was no dancer, and had not even the compensating attraction of a green tie. Originally a gold-digger in California in the "roaring times of '49," he had left that somewhat unhealthy occupation and, according to his own account, had chased the walrus in most parts of the Arctic Ocean. He was hardly regarded as a "ladies' man" even by the Kamschatkans, and as he sat furtively

watching the dancing, a short black pipe half-buried in his enormous bushy beard, one felt that he had the makings of a very pretty scoundrel about him. We were as strange a mixture of nationalities as of individuals. A Russian fur-trader of more than doubtful sobriety, an American negro steward of the *Nemo*, our two hunters, and a few of the eligible youth of the settlement completed the party; and round the door the crew of the *Nemo*—a group of bright-eyed little Japanese—watched the performance with evident amusement.

A dance had just ceased as we arrived, and we took our seats in placid ignorance of what was in store for us. Presently the squeak of the fiddle was heard, and instantly the ladies rushed in search of partners. There was a great move in the direction of the two Swedes and the rest of the party, and as became a modest old bachelor I prepared to *faire tapisserie* with the papas and mammas. But it was destined to be otherwise, for on raising my eyes I found that two fair damsels were suing for the honour of my hand. Now, were I of a romantic nature, I might enlarge upon the position; the bewitching glances of my two would-be partners, their beseeching tones of entreaty, the natural diffidence that I felt in such an unaccustomed situation, and the coyness with which I was eventually induced to bestow the dance upon the most persistent of the fair ones. But truth compels me to relate a different story. Even the brilliancy of the bottle-candelabra'd room failed to throw a halo of romance around the affair. The young women were *not* beautiful, and, as a matter of fact, I would just then have hailed the appearance of my old college bed-maker as a third suitor with delight. However, there was no time to be lost; the seal-hunter, the American nigger, and the tall Swede were already hard at it, and slipping my arm around the waist of the nearest fair one, I plunged blindly into the dance.

The affair was simple enough at first. The dance merely consisted in shuffling slowly round the room side by side, the gentleman with his left arm free, the lady accompanying the music with a sort of monotonous chant. Time was of no particular object, and smoking was permitted, and as we had partaken neither of the cranberries nor the corn brandy, we felt as well as could be expected under the circumstances. It was not for long, however. Suddenly the music stopped; everybody clapped their hands; and, short and stern, the order rang out in Russian—"Kiss." There are moments in which even the stoutest spirit quails. I turned a despairing glance on my partner and my heart sank within me. All hope was gone! We all know how in moments of supreme emotion the most trivial details become indelibly stamped upon the mind. The scene is before me now. I saw the red-haired seal-hunter bend down to meet his fate like a hero, his green tie dangling in the air; I saw a gallant officer who had served Her Majesty in many climes struggle nobly to the last. Slowly my partner's arms dragged me down

. . . the lips stole upwards. I nerved myself for a final effort . . . and all was over! Before the next dance I had fled.

About noon on the following day we again rowed down to the mouth of the river, and as we neared the bar we saw that to have attempted it on the previous night would have been foolhardy in the extreme. At ordinary high tides it appears that there is between ten and eleven feet only in the deepest part, and R——- told us that he had had a narrow escape in getting the *Nemo*, which had a draught of ten feet six inches, into the river. She had bumped heavily once or twice. The entrance shifts constantly, and in bad or indifferent weather the bar is doubtless a very dangerous one. We arrived at the best time of the tide,[1] and were fortunate enough to get over the three big waves without even a wetting. A few minutes later we boarded the *Marchesa*, after an absence of exactly a month. We found all well, and the day passed quickly in chatting over our various adventures. The Swedes bade us adieu towards evening, and the sun was setting in a blaze of gold behind the giant pyramids of Kluchi and Kojerevska as we fired a farewell gun and stood away for Bering Island.[2]

[1] It appears that there is only one tide here in the twenty-four hours.

[2] I have adopted this, the correct orthography of the celebrated navigator's name, instead of the more usual Behring, a piece of bad spelling which, I believe, we originally borrowed from the Germans.

CHAPTER IX.

BERING ISLAND.

EASTWARDS from Kamschatka stretches the curious chain of volcanic rocks known as the Aleutian Islands. A vast series of stepping-stones, as it were, to the dreary fog-bound coast of Alaska, they correspond geologically as well as geographically to the equally lonely, but less known chain—the Kuriles—connecting Yezo with the peninsula we have just left. All but the two most westerly belong to Alaska, and are in consequence American, but Bering and Copper Islands, together known to the Russians as the Komandorskis,[1] form part of the dominions of the Czar.

A glance at the map tells us nothing with regard to the importance of these two islands. There seems to be no reason why they should not be just as valueless as the other islands of the chain. Dreary, barren, and treeless; covered with great stretches of *tûndra*, lake, and marsh; exposed to the full force of the terrific gales which rage in those latitudes during the autumn and spring; hidden in fog throughout the short summer, and partially ice-bound through the long and dreary winter, one would hardly suspect them to be of any very great commercial value, yet they are the breeding grounds of the Fur Seal (*Callorhinus ursinus*), whose skins clothe the fashionable fair sex of half Europe and America, and will probably continue to do so for centuries to come, now that the reckless war of extermination formerly waged against the animal has at length been put a stop to.

It was with the intention of visiting these breeding-grounds, or "rookeries" as they are termed, that, on the 16th September, we cleared Cape Kamschatka and set our course eastwards for Bering Island. The voyage is not a long one, and by noon on the following day, having run a distance of 105 miles, we found ourselves in sight of land. The morning was bright and sunny, a rare enough event in these regions,

[1] So called after Commander Bering, who perished there in 1741.

but there was little to attract in the shores we were rapidly approaching. A vast extent of brownish-yellow flat lost itself in the distance, rising here and there into table-topped hills of no great height. Other features in the landscape there were none. Not a tree or a sign of human habitation was to be seen, and the only trace of life and movement apparent lay in the long white lines of breakers that thundered upon the coast. The settlement is placed at the mouth of a small river on the north-west side; and in a couple of hours more we had taken advantage of what little shelter the so-called harbour affords, and let go our anchor in five fathoms off the south part of the bay.

We were soon boarded by an individual in the service of the company to which the islands are leased, and I doubt whether he was ever more mystified in his life before. Poaching schooners from San Francisco who cruise around in the fogs in the hope of making unseen raids upon the rookeries—these he was doubtless well acquainted with; and the fur-steamer which calls twice yearly for the pelts was also within his comprehension. But our *raison d'être* and intentions were quite beyond him. He probably did not know what a yacht was, and even if he did, we felt that it would be altogether too much to expect him to believe it likely that any one would leave England to cruise in Bering's Sea for amusement. He left the ship with evidently no little distrust as to our designs, but condescended to supply us with two pieces of information before his departure; the first, that we had taken up the best anchorage in the bay, and the other, that we were the only British ship that had ever visited the island. For the truth of the latter statement I cannot vouch; with regard to the former we could only say that we were sorry it was not better.

The little village, in spite of the utter bareness of its surroundings, looks neat and not unpleasing from a distance, with its carefully-fenced compounds and red-roofed houses. This improved appearance—for not long ago the people lived in miserable underground yourts like those in use among the Kurile islanders—is due in great measure to the Alaska Commercial Company, who rent the islands from the Russian Government, and have the sole right of killing the seals. Many turf-built houses still remain, inhabited by the Aleuts employed in the seal-industry, but they are being gradually replaced by the more healthy wooden tenements, all the materials for which, in consequence of the complete treelessness of the island, have to be brought over from Kamschatka. The condition of the islanders has no doubt improved in every way since the Company has been in possession. There is a Russian church and a good school for the children, and the ills to which Aleut flesh is heir are looked after by a surgeon. With the exception of one or two Russian officials who check the annual take of skins, administer justice, and lead as meditative an existence as the

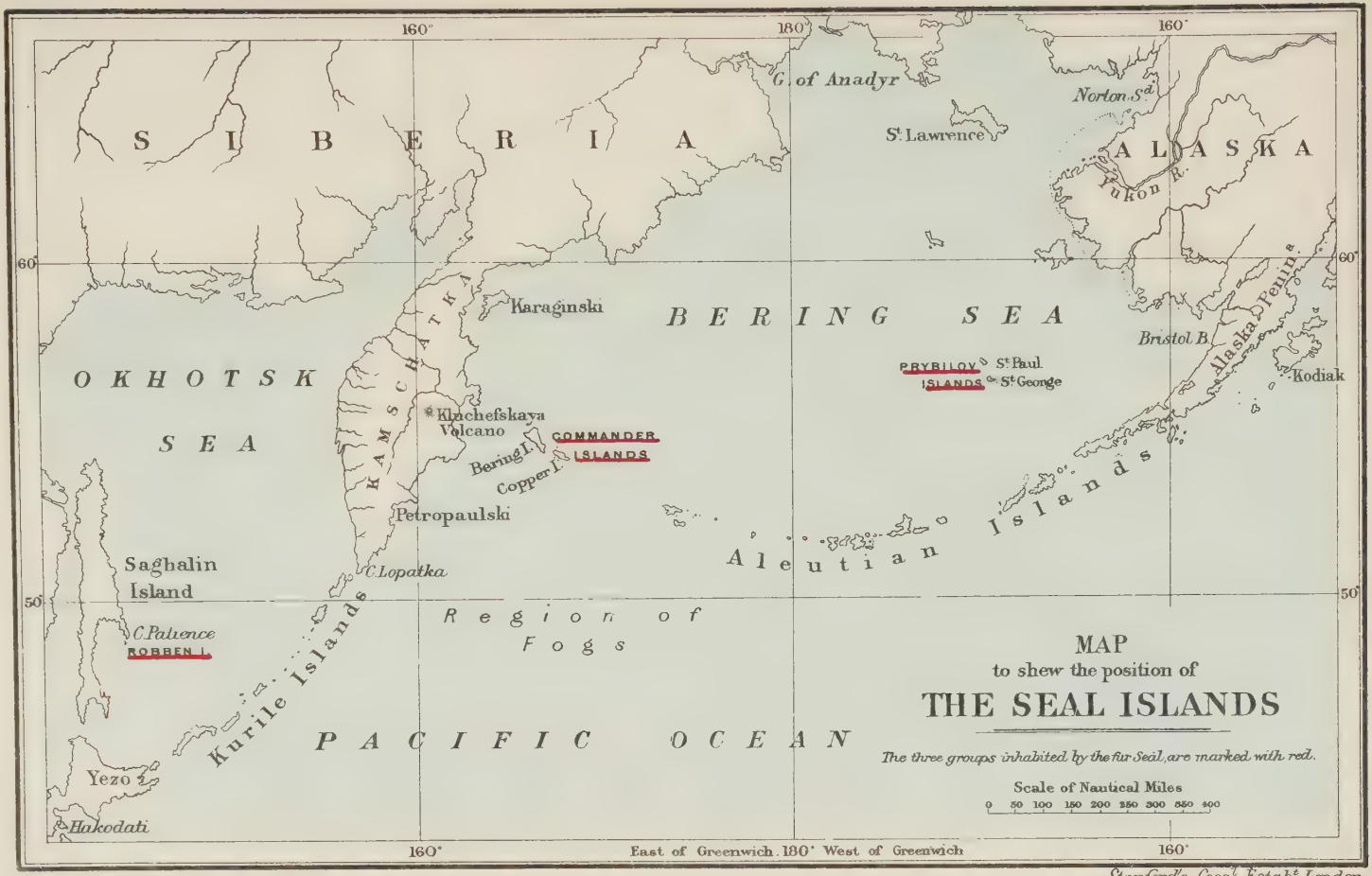
climate will permit, every soul upon the island is in the service of the Americans.

The Komandorskis, and, for that matter, other islands in these out-of-the-way regions to which I shall presently refer, would be valueless without the fur seal; and just as in Kamschatka the salmon and sables are the be-all and end-all of life, so here this extraordinary animal, whose congener of the Antarctic Ocean is now nearly extinct, supplies either directly or indirectly the means of support to the inhabitants, and at the same time a fund of conversation to enable them, in conjunction with tea and tobacco, to sustain life through the winter until the "killing season" commences. Before my reader accompanies me across the *tûndras* to the rookery on the other side of the island, a glance at the habits and distribution of the animal is necessary to enable him to understand the system upon which the annual "take" is worked.

ALEUT PIPE.

The fur seals, or more accurately speaking, the breeding-places of the fur seals, are in the North Pacific confined to five islands. On Masafuera and Juan Fernandez Islands off the coast of South America a few skins are still taken, and in bygone days the South Shetland, Crozet, and Falkland Islands were the resort of countless thousands of these animals. But they are now nearly extinct, and almost every sealskin that finds its way into the London market is obtained upon one or other of the islands rented by the Alaska Commercial Company. Copper and Bering Islands are by no means the most important. By far the largest export is made from the Pribylov group, two islands (St. Paul and St. George) in Bering's Sea to the east and north of the Komandorskis, on which 100,000 skins are taken annually. Last, and of least importance, is Robben Island, the chief interest of which lies in its somewhat abnormal situation as a breeding-ground—it being nearly 1000 miles distant from the other seal islands. It is close to Cape Patience, on the eastern shores of Saghalin, and the number of skins yearly obtained from it is very small as compared with the yield of the Bering and Pribylov groups.

The sea-cat or sea-bear, as *Callorhinus* has been familiarly named by the seal-hunters, is a gregarious animal which disports itself in the waters of the Pacific throughout the winter, and during that time is seldom or never seen. Impelled by unerring instinct, it steers northward in the spring, and reaches, by a power that seems little short of


MAP
to shew the position of
THE SEAL ISLANDS
The three groups inhabited by the fur Seal, are marked with red.
Scale of Nautical Miles
0 50 100 150 200 250 300 350 400
SIBERIA
ALASKA
G. of Anadyr
Norton Sd.
St. Lawrence
Yukon R.
Alaska Penin.
Bristol B.
Kodiak
Aleutian Islands
BERING SEA
Karaginski
KAMSCHATKA
Klnchefskaya Volcano
COMMANDER ISLANDS
Bering I.
Copper I.
Petropaulski
C. Lopatka
PRYBILOV ISLANDS
St. Paul
St. George
OKHOTSK SEA
Saghalin Island
C. Patience
ROBBEN I.
Kurile Islands
Region of Fogs
PACIFIC OCEAN
Yezo
Hakodati
160°
180°
160°
60°
50°
East of Greenwich. 180° West of Greenwich
Stanford's, Geog.l Estab.t London

miraculous, one of the five islands I have just mentioned. It seems that the seal almost always returns to the island upon which it has been born, although not necessarily to the same rookery, and the date of its appearance is one of considerable regularity. In Bering Island the 12th May is, we were informed, the usual date of the arrival of the bulls. The cows are later by three weeks or more, but by the middle of June the rookeries are crowded, and the land existence of these curious animals has fairly commenced for the year. Here they remain for four or five months or longer, during which time the inhabitants of the island are hard at work slaughtering and preparing the skins to a number previously regulated by the Company. The departure of the animals is not so regular as their advent. If a cold winter is to be expected they go earlier; if the reverse they remain considerably longer, but their usual date of leaving is about November 20th.

Early on the morning after our arrival we landed for our expedition across the island. As we walked through Nikolsky, as the little settlement has been christened by the captain of H.I.M.S. *Afrika*, numerous stolid-looking Aleuts turned out to stare at us and to wish us *drastia*. Nature having altogether declined to supply them with wood, they have overcome this obstacle to the construction of boats in the same manner as the Esquimaux and other northern tribes,—by the use of skins; and beautifully-modelled canoes, not unlike Greenlanders' kayaks, and similar in every way to some we saw afterwards among the Kurile islanders near Cape Lopatka, were lying near many of the huts. The *bidarras*, open boats of very large size, are made in like manner by stretching skins over a wooden framework, but though capable of being sailed, and of carrying a considerable quantity of cargo, their shape by no means commends itself to a sailor's eye. The agent of the Alaska Commercial Company had kindly provided us with dog-sledges, and we found them "inspanned" and waiting for us on the banks of the little river, into which the dogs were kicked with scant ceremony to find their way across to the farther side. Halfway over they got entangled with the sledges and one another, and when to the ignorant European bystander they appeared three-parts drowned, an Aleut who had been placidly watching matters from the bank walked into the icy water and drew therefrom a sledge with a large bunch of dogs attached. I have seen a Cape cart and six horses "*demakaar*" with a mixed harness composed of raw hide, rope, and leather, the whole an indistinguishable mass of kicking legs; but I do not think I have ever seen a prettier mess than our teams exhibited on gaining the bank. Without the aid of a knife it looked hopeless, but sledge-travelling is, I believe, full of little incidents of this kind, and it was not long before the delinquents were unknotted and we had commenced our journey.

However wearisome it may be for *blasés* Arctic explorers, there is no

doubt that, with the proper accompaniments of a bright sun and sharp air, travelling by dog-sledge is one of the most exhilarating of all forms of locomotion. Somewhat back-breaking it is, no doubt, for the sledge—a mere framework of planks six feet by two, elevated some six inches from the ground—is without any support for the occupant to lean against, and the tyro has to keep his position as best he can by means of the small side rail. The driver runs by the side, steering the dogs by word of mouth, and throwing his stick with unerring aim at any lazy or obstreperous member of the team. The sledge-dogs in Kamschatka have on the whole a hard time, but the Long Vacation which all of them enjoy during the summer atones for it. But here the wretched animals have to work throughout the year, and are treated with no tender hand by their master. If they can be kicked into their proper places, this seems to the unsophisticated mind of the native by far the simplest method to adopt; and the mode of chastisement in use—that of holding the dog down and pounding him on the head with a heavy stone—is most certainly effectual, though to an Englishmen it is by no means a pleasing sight.

There are two rookeries upon Bering Island, and of these we resolved on visiting that at the northern end. The country to the south is mountainous and broken, but here our way led over great stretches of plateau land and *tûndra*, through whose level sea of yellow grass we hissed, exposed to a perfect shower-bath of dewdrops. Our six sledges followed each other in Indian file, and in the distance looked like a string of huge caterpillars crossing the extensive plains. In every direction sheets of water from a few yards to a mile or more in length lay around us, sparsely dotted with wild duck; and curious hills, low, flat-topped, and isolated, stood up abruptly from the level surface of the marshy flats. The land, rising from the sea in a succession of terraces of singular regularity, bears the strongest evidences of gradual but discontinuous elevation. These terraces have very abrupt edges, and down these little cliffs of ten to twenty feet in height the sledges shot from time to time with a velocity not a little startling to the occupant, who was generally in total ignorance of their proximity. Now and then we crossed slight elevations, partaking rather of the character of the Kamschatkan fjells, and covered with bilberries and *Empetrum*, and occasional patches of the "reindeer-horn" moss. Such ground is most exhausting to walk upon, the pedestrian sinking up to the knees into the soft mossy hummocks at every step.

We had taken our guns in the hopes of securing some ornithological specimens, but, with the exception of the Lapland Buntings (*F. lapponica*), which were numerous, few birds were to be seen. About six or seven miles from Nikolsky we came to a little stream with overhanging banks, where with a small hand-net, and also with

CROSSING BERING ISLAND.

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our own unaided hands, we caught some beautiful little trout of a quarter to half a pound in weight. Close by was a small pool, whose connection with the stream was of the faintest description; but it must nevertheless have been sufficient to permit of the passage of some large salmon which we found there. They were kelts of the Haiko and Garbusa (*O. lagocephalus* and *O. proteus*), but although a few were still alive, the greater number were dead and rotting on the banks, and none were fit for food. Near here we shot some snipe and teal, and shortly afterwards came to a long yellow plain like an unbroken expanse of September corn, which stretched away in a gentle slope to the rookery some five or six miles distant. Here, for fear of disturbing the seals, the order "cease firing" was given.

A small settlement of about twenty huts stands at no great distance from the rookery. These are only used in the summer, while the seals remain upon the island, and are inhabited by a strong force of Aleuts under the command of a Cossack. These men are all armed with American rifles, and guard the rookery day and night against the raids of predatory schooners. Every year a small fleet of these vessels leaves Yokohama, ostensibly for fishing or walrus-hunting, but it is well known that this is not their real business, and that advantage is taken of the fogs so often met with in these northern seas to make descents upon the seal islands. The Alaska Commercial Company are not by any means shy of using force upon these occasions, and in more than one instance the depredators have been severely handled. In October 1881, two of the crew of one of these vessels were killed, and seven or eight wounded. Among the latter was an Englishman or American, who was afterwards landed at Petropaulovsky with no less than thirteen bullet wounds. Strange to say, he eventually recovered. After our departure from Bering's Sea we heard that the schooner *Nemo* which we had left at Ust Kamschatka had been shortly afterwards seized as a suspected craft by a Russian cruiser, and taken to Vladivostock. Here she was detained throughout the winter, and the crew kept prisoners, but what eventually happened to them we could not learn. That the lessees of the islands should have some means of checking the poaching on their shores, and in the surrounding waters within a distance of three miles or so, seems fair enough, but it is more than doubtful whether such high-handed measures as have lately been taken should be permitted. In an Act of Congress passed in 1870 for the protection of the Pribylov Islands the extent of the preserved waters is not definitely specified—the phrase "and the waters adjacent thereto" being employed.

Our dogs were unharnessed and tied up, and, taking the precaution of keeping well to leeward, we walked down to inspect the rookery. Although familiar with the description of a former visitor, I confess

that I was utterly unprepared for the sight that met my eyes. For a distance of about three quarters of a mile along the coast was spread a seething black mass of animal life, the individuals of which seemed almost "as the sand upon the sea-shore for multitude." There were, we were told, about seventy thousand of them, but had our informant said seven hundred thousand I do not think I should have been astonished. Beyond a certain limit the eye is incapable of estimating numbers. Excepting in the case of the human species, I had never before seen such an enormous collection of living creatures gathered together in so restricted an area, and indeed no other instances of a

SLEDGE DOGS.

like nature are known in the animal world. Sprawling about in all manner of attitudes, fighting, sleeping, fanning themselves, making love, and splashing in and out of the water in shoals, these densely-packed creatures exhibited a ceaseless activity of movement which reminded me strongly of a mass of maggots in a piece of carrion. The ground upon which they had "hauled up"—for this is the term in use to express the animals' landing—was a long stretch of low-lying black rocks, backed and interspersed with coarse pebbly beach, and upon the summits of the higher eminences some huge old bulls were easily distinguishable. A shore of this nature, we were told, is always much preferred to sand, which adheres to the creature's fur, and, getting into its eyes, is apt to induce inflammation. From the fact that we saw

young seals with ophthalmia in this rookery, it would seem, however, that this, although possibly one, is not the only cause of the disease.

Approaching as near as we dared without disturbing our "sitters," we took photographs of the strange scene before us. It was as noisy as it was restless. The united vocal efforts from the many thousands of throats produced a dull, continuous roar that resembled nothing so much as the sound that greets the ear at "the finish" on a Derby day. This noise is said to be audible at a distance of three miles or more, and is one of the signs by which the proximity of the island is recognised by sailors during a fog. For the most part it is an evenly-blended volume of sound, but now and again the lamb-like bleat of a pup is audible above the rest, or the deep, hoarse bellow of an old bull. The din is constant, for the animals take their rest in short uneasy dozes at any time in the twenty-four hours, and life on the rookeries by night is as ceaseless in its activity as by day.

The land life of the fur seal is as peculiar and interesting as the distribution of the species. Morally, I am afraid, it is not instructive, for the animals are all confirmed polygamists, run away with as many of their neighbours' wives as they can, and spend their time in continual fighting. But with all these peculiarities they are essentially law-abiding individuals, as must be the case in all large communities. The rookery, with the extent of its area as sharply defined as that of a sheep pen, is portioned out upon a certain plan which is rigidly adhered to, dependent mainly upon the fact that the young males are not permitted to engage in the responsibilities of matrimony until they have reached their sixth year, although they are actually adult before that time. These happy individuals, known by the natives as the *holluschicki* or bachelors, are allotted a playground to themselves where, in company with the pups of the other sex of one and two years old, they sport unconscious of the parental cares and sanguinary battles that another season or two will find them engaged in. These playgrounds are either in rear or at the side of the rookery, the remainder of which is allotted to the old bulls, their wives and the newly-born pups. Into this part even the boldest *holluschack* dares not penetrate, for if he does so he probably pays the penalty with his life.[1]

The old bulls, as already stated, are the earliest arrivals, and immediately proceed to select a good position for the reception of their future wives. They "peg out a claim" as it were, into which none other intrudes save at his peril. To the defence of this little space, which is perhaps not larger than a small room, the whole energy of the animal is devoted. He neither rests nor eats, and his whole time is

[1] For a great part of my information upon the subject of the seal rookeries I am indebted to Mr. Oasche, an employé of the Company, and to the elaborate "Monograph on the Seal Islands of Alaska" of Mr. H. W. Elliott.

occupied in savage encounters with other later comers who endeavour to oust him from his post. It is only the biggest and strongest that can retain the coveted positions next the sea, and even these, worn out in time by the severe wounds that they have received, have occasionally to yield to younger and fresher antagonists, and literally, as well as metaphorically, to take a back seat. The seal even at this period then is scarcely to be held up as an example of brotherly love, but the effect produced by the appearance of the fair sex upon the scene can be imagined. They have been long expected, and the position of their future lords and masters having by this time been pretty well settled, the rookery has relapsed into a somewhat more peaceable condition. But with the advent of the cows, who, poor things, have but a sorry time of it, all is changed, and the fighting again commences with redoubled ardour. The fortunate animals who have secured the positions next the sea have, of course, the first choice as the new arrivals "haul up" upon the beach, and they waste no time over the matter. The bull seal has as little romance about him as a last year's "Bradshaw," and he does not idle away his hours in sighing at his mistress's feet. Should any cow come within reach he seizes her by the scruff of the neck, and having deposited her within his "claim," at once turns his attention to the annexation of another. Meanwhile perhaps his neighbour, struck with admiration at the graceful proportions of the bride, has quietly transferred her to his own harem while her husband's back is turned, and a pitched battle ensues upon the injured bridegroom's discovery of his loss, during which the unfortunate cow for whose possession they are fighting is either seized upon by a third party, or gets severely mauled by the combatants. Mr. Elliott relates a case witnessed by himself, in which the disputed fair one, while tugged in opposite directions by her admirers, had the skin completely torn off her back to the extent of a foot or more. These injuries are borne by the sufferers without a groan, and apparently heal with great rapidity.

Before long the cows have all landed; the attitude of the bulls towards each other becomes more peaceable, and their domestic arrangements more settled. The number of wives with which each is eventually provided varies very much, and depends chiefly upon the position and strength of the master of the harem. Mr. Elliott tells us that he has known of one unhappy individual who guarded as many as forty-five; but such instances are rare, and from twelve to fifteen is said to be an average number. Those who are weaker, and compelled to take up outlying posts at the back of the rookery, have very much fewer, and among these it is but seldom that more than three or four are seen. But although after a little while all prospect of adding fresh beauties to his seraglio is gone, the matrimonial duties of the unhappy

Benedict still keep him closely imprisoned to the little plot of ground upon which he commenced housekeeping. He dares not leave his charges for a moment, or they would be instantly appropriated by his neighbours; and thus, cut off from the sea and from food of every kind, he endures a fast so protracted and absolute that at the end of his three months of married life he is reduced to a mere shadow of his former self. Even we, with all the advantages of civilisation, cannot show greater incentives to the continuance of a bachelor life!

By the beginning or middle of August the rookeries lose all trace of the careful organisation they previously displayed. The pups go down to the water's edge and make their first essays in the art of swimming, —an art which seems, curiously enough, to be not natural but acquired. The bulls, emaciated and scarred with their many fights, regain the sea and swim about in the neighbourhood of the island, though for the most part they do not land again upon the rookeries. Some of them are not so fortunate, and either perish in the fighting, or become so injured that they are forced to leave. These latter, we were told, generally herd together by themselves in some undisturbed spot to recover from their wounds,—an hospital, in short, where Nature, the most successful of all physicians, in most instances effects a cure.

The male fur seal differs in a most striking manner from the female. For the first two or three years they are much alike in size and appearance, but after that age the female practically ceases to grow. It is far otherwise with the bull, who apparently gains in weight until his death, and thus becomes enormously greater than the female in size. This increase in bulk is chiefly noticeable in the fore quarters of the animal, the throat and shoulders especially, and the effect is such as almost to give him the appearance of a different species. According to Mr. Elliott, the weight of a three-year-old male is about 90 lbs. and its length 4 feet 4 inches, but a full-grown one of the largest size would weigh as much as 600 lbs. and measure over seven feet. Such monsters as these are of course useless so far as their skins are concerned, but in the rookery their authority is proportionate to their weight, and few antagonists would care to dispute a holding ground with them. The immense masses of fat which these old seals carry render their movement on land an affair of more or less difficulty, but the action of the females and young *holluschicki* is much freer, and they get about with a tolerable amount of ease. A pet one presented to us during our visit, which lived for several days on board the yacht, gave me abundant opportunity of studying its habits. The fore flippers are used with considerable power, and the animal progresses almost entirely by their means, the hind quarters, which appear as if they were semi-paralysed, being drawn up awkwardly after them. Despite its evident unfitness for life on land, the seal is, however, a very fair climber, and is

often found some distance inland, and in places by no means easy of access.

The female, or cow as she is always termed, comes on to the breeding-ground at the beginning of her third year, and at that age weighs little over 70 lbs. The older ones sometimes increase to as much as 120 lbs., but the majority are considerably under that weight. They are thus just one-sixth of the size of the bull. Their length from

THE FUR SEAL. (*Callorhinus ursinus.*)

tip to tip, as given by Mr. Elliott, is from four to four and a half feet. Very soon after their arrival—at most not more than a day or two[1]—they give birth to a single pup, whose life, amid all the desperate fighting that ceaselessly takes place between the ponderous bulls, runs no little risk of extinction during the first few days. The cows go through no period of lengthened fasts like their consorts, but after a little while pay regular visits to the sea, and often leave their pups

[1] From this and other facts it seems that the period of gestation is almost exactly twelve months.

unattended for a day or more. The latter do not seem to suffer from this neglect, and the mother, able to obtain a sufficiency of fish, remains sleek and in good condition throughout the summer. The pup is born with the eyes open, and is nearly black in colour.

There are few sights more fascinating to a naturalist than the vast sea of animal life which one of these great rookeries presents. The fur seal, though possessed of the keenest powers of scent, cannot see well, or, more accurately speaking, does not become so readily cognisant of danger by sight as by smell, and in consequence, if the observer only keep to leeward, he may watch the animals playing within a few yards of him at his leisure. We were on the edge of the *holluschicki* ground, and the various gambols and attitudes exhibited by them were most amusing. Some engaged in mimic warfare, and rolled over and over like young kittens; others sat fanning themselves slowly with their long hind flippers. Whether this is really done for the sake of keeping themselves cool I do not know, but that they are extremely sensitive to heat is certain, for sunny weather invariably sends them into the sea in large numbers. Rain appears equally to be disliked by them, but a cold, foggy day, we were told, is their beau ideal of weather. Mr. Elliott doubts if the animals will vacate their present breeding-places, since no other shores in Bering's Sea are properly adapted for their requirements as regards ground and climate. Certainly if their idea of enjoyment consists in lying on a wet rock in a fog, exposed to an icy breeze, their present choice of locality seems admirably suited to them. Yet in spite of these insanitary rashnesses they are said to live to the age of twenty-four years or more. What better argument, I wonder, could a lady possibly advance for the absolute necessity of a sealskin cloak!

We were too late in the season to see the rookeries in their fully organised condition, but a great number of old bulls remained, and were conspicuous by their large size and by the elevated positions they had assumed. They were most likely those that had returned from a holiday of a month or so at sea after the squabbles and anxieties of their married life. They are the first to take their departure and do not usually return, but the cows and *holluschicki* remain much later, and leave about the same time—in the earlier part of November, or even in October. The agent of the Alaska Company told us that, as a rule, the shores were practically deserted by the 20th of November, but that a few stragglers were occasionally to be found even later. They are usually the more weakly pups, who perhaps are unwilling to trust themselves to their ocean life until they have gained a sufficiency of strength.

There are certain disadvantages attaching to bachelorhood even in seal life. Among ourselves, some careful statistician has, I believe, conclusively proved that what is called the expectation of life is

considerably greater among the married than the unmarried. Through the instrumentality of the Alaska Commercial Company the same rule holds good for the unhappy fur seal. Nature, from the lowest to the highest of its species, abounds, so naturalists inform us, with "useless bachelors," but as one of the class myself, I cannot help sympathising with the fate of the *holluschicki*. Not even the alternative of a wife is offered them, but they are tapped on the head with little ceremony and converted into sealskin jackets. The place of slaughter, where the unburied bodies of the victims lay rotting in the damp air, aroused other feelings besides those conveyed through the medium of the nose; and bearing in mind the coming reign of utilitarianism, I could not help congratulating myself on the fact that man is not a fur-bearing animal.

The *holluschack* is, from his habit of life, unconsciously the author of his own misfortunes. As I have already stated, the playgrounds are always perfectly distinct from the breeding-ground, and often lie at a considerable distance from them. It is a rule, to which no exceptions are permitted, that the latter should never be disturbed. Beyond the age of six years —the breeding-age in short—the skin of the male fur seal is useless from a commercial point of view, and that of the pup, even were it of the best quality, is far too small to realise its highest value. The cows are, of course, preserved with the greatest care, none being ever permitted to be killed, and hence it happens that the bachelors alone, and even among them only those of a certain age, supply the skins that are annually taken for the European market. The method of killing them is simple, and is much facilitated by the tameness and slow movements of the animal. Running quickly between the playground and the sea the natives are able to cut off the escape of as many as are wanted, and those thus separated are driven slowly up to the killing-grounds. They are guided far more easily than a flock of sheep would be; a few men stationed on the flanks and rear of the column being all that is necessary. Arriving at the place of slaughter, the animals are killed in batches by being knocked on the head with a leaded club some five feet in length. A knife is then plunged into the heart, and the skin removed without loss of time, for any delay in this operation often causes the fur to rub off. The majority of the seals thus killed are at the commencement of their third or fourth year of existence, when the fur is at its prime. The few useless old ones, or any young pups that may get mixed up with the drove, are spared, and permitted to return to the sea.

The number of skins annually taken upon each island is regulated with the greatest care, and is so arranged that the animals shall under no circumstances suffer any reduction in number from year to year—in other words, that the breeding stock shall always remain undiminished. Keeping this object carefully in view, the Alaska Company find that

they can take as many as 100,000 pelts every year upon the Pribylov Islands. The Komandorski group is not nearly so productive. Bering Island furnishes a varying number which may perhaps be averaged at 18,000,[1] but more are obtained from Copper Island, where the number usually reaches 20,000. I have no information with regard to Robben Island, but, roughly speaking, the total number of skins annually sold in the English market (for they are all brought to London) cannot be much less than 150,000.

The first process of curing that the skins are subjected to is simple in the extreme. They are merely packed together with salt between and around them, and having been left thus for a few weeks, they are ready to be tied together and tossed into the hold of the steamer that takes them to San Francisco. The after processes of curing, unhairing, and dyeing are too complicated to give at length. Upon the care with which they are performed depends the quality of the skin; seldom, as is generally supposed, upon the condition of the animal from which it was obtained.

Most ladies, if the truth were known, and I daresay not a few of the sterner sex also, imagine that the fur seal (as to whose identity with the hair seal they are perhaps somewhat hazy) disports itself in its native element with its jacket in exactly the same condition as those which grace their own fair figures. This, however, is by no means the case. The natural colour of the animal is a dark greyish or brownish black upon the upper surface of the body, shading into a steely grey over the shoulders, while beneath it is much lighter, becoming pale yellowish, or even almost white, upon the chest. The whole of the true fur, which in the prepared skin is all that is allowed to remain, is covered with a thick layer of coarse, shiny hairs, and the appearance of the natural skin, though pretty enough upon the animal, would be anything but pleasing if made into a garment.

We watched the rookery until we were tired, and then, anxious to see the process of slaughtering and skinning, asked that a few seals might be driven up for that purpose. But either from its being contrary to custom, or from a distinct unwillingness to oblige us, our request was abruptly refused; and it was only with the greatest difficulty that we got the overseer to allow some to be separated and driven up in order that we might photograph them. It was in vain, after this was over, that we begged to be allowed to take away two or three of the animals; they were to be counted by tens of thousands close at our feet, yet permission was unceremoniously refused us. We were, however, determined by fair means or foul, to get hold of a specimen for museum purposes, and at length, after much discussion, we were given a weakly two-year-old suffering from ophthalmia, with which we had to be content; and

[1] In 1881 16,078 were exported; in 1882 about 19,000.

making him as comfortable as we could upon one of the sledges, we started on our homeward journey.

Before leaving the subject of the fur seals and their rookeries, a word or two anent the Alaska Commercial Company is necessary. Started in 1869 by two energetic Americans who alone recognised the value of the seal islands at the time of the occupation of Alaska by the United States Government, it has saved a most valuable animal from extinction, and the Pribylov and Bering groups are now neither more nor less than stock-farms where every care is taken for the preservation of the breeding animals. It is impossible to visit the North Pacific without hearing the Company abused, but, as it seems to me, entirely without justification. Their action, with the exception of the more than vigorous measures which they have occasionally taken for the defence of their property, appears to have always been most moderate, and to tend quite as much to the benefit of their successors as themselves. The profit upon the skins is by no means excessive so far as can be gathered from Mr. Elliott's work. The rental of the Pribylov Islands is $50,000, and, as has been stated, the number of seals killed annually is about 100,000. Upon each pelt a duty of $2 is paid to the United States Government, and as each costs 40 cents for skinning, it will be seen that the actual sum disbursed for every sealskin leaving the islands is twelve shillings,—an amount that is further augmented by the addition of the general expenses of the Company. The Bering group is, I believe, held from the Russians upon rather more advantageous terms. The lease of all the islands expires in 1890.

It was with much surprise and pleasure that we found Dr. Leonard Stejneger, the accomplished and well-known naturalist, established in Nikolsky. He had come to investigate the natural history of the Komandorskis, and was prepared to devote himself to an eighteen months' exile from civilisation in this dreary spot. Surrounded by the large collections he had already made, it was pleasant to chat over subjects in which we had a common interest, and to learn many details of the island which he alone could give. He had just returned from an expedition to the spot where Bering and his crew had wintered in 1741, and had been successful in obtaining a quantity of bones of Steller's sea-cow—the huge mammal, as far as we know peculiar to the island, which has been extinct for more than a hundred years.[1] He had also found some grape-shot, a few iron bolts and some glass beads—the relics of Bering's ill-fated party.

According to Dr. Stejneger, none of the species either in the fauna

[1] *Rhytina gigas* (Temm.) For the description and history of this animal *vide* Nordenskiöld's "Voyage of the *Vega*," Eng. trans. p. 361. According to Dr. Stejneger, the accounts given to Nordenskiöld by the natives with regard to the supposed existence of the animal up to a much later period are not to be relied upon.

or flora of the Komandorski group are indigenous, but are the results of immigration after the emerging of the islands from the sea. This immigration has taken place chiefly from the west, and the animal and vegetable life consequently agrees very closely with that of Kamschatka. There are, of course, but few land mammals upon the islands. The blue or Arctic fox (*Vulpes lagopus*) is still tolerably common, although it no longer exists in the enormous numbers in which Bering found it, but as many as fifteen hundred were killed in the season of 1881-82. The most abundant animal appears to be the field-mouse (*Arvicola rutilus*), whose introduction took place barely a decade ago. It now swarms in Bering Island throughout its whole extent, but as yet has not gained a footing upon Copper Island.

ALEUT PIN.

The only domestic animals are chickens and cows, for up to the present horses have not been introduced as they have upon the Pribylovs, and all transport work is effected by means of dogs. At the period of our visit we found the whole community greatly interested in an experiment which, in its first steps, had been very successful. Fifteen reindeer, four of which were stags, were landed on the island in the month of July, thanks to the joint efforts of Dr. Dybowski and the Alaska Commercial Company. That they will become fairly established in their new home there is little reason to doubt, for the fjell country to the south is especially suitable for them, and food is abundant. Should this prove to be the case, the enterprise will be eventually of the greatest benefit to the islanders.

It was with much regret at our inability to make a more lengthened stay that we bade adieu to Nikolsky and its inhabitants. The season was getting far advanced, however, and we had decided on revisiting Kamschatka ere we finally set our faces southward. We had not as yet obtained the Kamschatkan Bighorn, of which we had so long been in search, and we were also anxious to secure some walrus; so getting on board our pet fur seal and the other natural history curiosities we had collected on the island, we weighed anchor and stood away to the S.W. for Cape Klin on the coast of Kamschatka.

CHAPTER X.

KAMSCHATKA.

The eastern shores of the peninsula of Kamschatka are broken by three well-marked promontories :—Capes Kamschatka, Kronotsky, and Shipunsky; and it was for the latter—the southernmost—that we shaped our course. Our friend R——, the captain of the schooner *Nemo*, had recommended this part of the coast as being the best ground for wild sheep and walrus, and though he had himself hunted it on his voyage to the mouth of the Kamschatka River, we hoped that a sufficient time had elapsed for the animals to have returned to their old quarters. Nearing the land a little to the north of Cape Shipunsky, it soon became evident that the outline of the chart of this part of the coast had been traced according to the fancy of the cartographer. Instead of a nearly straight shore devoid of dangers, we found ourselves at the entrance of a fine bay nearly two miles in depth, running in a south-westerly direction. The scenery was wild and lonely-looking to a degree, but the jagged precipices and rocky islets of which it was in great part composed were less pleasing to a sailor's than an artist's eye; and it was with a certain sense of relief that, on the return of the lifeboat we had sent to coast the shores of the bay, we learnt that no trace of walrus was to be seen. With the prospect of bad holding-ground and no shelter to speak of, we resolved on trying farther to the north, and therefore, without anchoring, made at once for Cape Klin, our original destination.

We kept within a mile or two of the land, expecting to arrive in an hour or less, for the distance between Capes Shipunsky and Klin was barely twelve miles by the chart. We found, however, that the distances were as little to be relied on as the outline of the coast, and we had logged thirty-six miles before stopping the engines abreast of the cape. We rowed along the beach in vain in search of the game. Not a walrus was to be seen, but on nearing a little group of rocks we

noticed a large mass lying upon the beach, and landed to find ourselves in the midst of a scene of slaughter which sufficiently accounted for the absence of our quarry. The crew of the schooner had evidently had good sport, for the shore was dotted here and there with the bodies of the slain, which were blown out to a gigantic size by decomposition. That there were still plenty of walrus in the neighbourhood was evident, for on our return to the ship the animals played in numbers around the boat; but, unlike the fur seal, they will not "haul up" on the shores where others of their species have been killed, and we had therefore to give up all hope of obtaining them at Cape Klin. The walrus restricts itself more or less to certain favourite spots for landing, and a random search for them along the coast would have been attended with but little success. It is nearly impossible to kill them in the water except by harpooning, for the only fatal shot—a small spot at the nape of the neck—is very rarely obtainable, and the animal, if struck there, usually sinks at once.

Our search having thus proved fruitless, there was nothing left for us but to return to the neighbourhood of Cape Shipunsky, in the hope of obtaining some of the bighorn or mountain-sheep which, according to Jacof Ivanovitch, were to be found there in abundance. A few years previously he had visited Betchevinskaya Bay, a deep inlet ten miles to the west of the cape, and had shot several; and since, according to his account, both anchorage and shelter were to be had—a not unimportant consideration on such a coast—we again steered southward, and keeping a good offing during the night, ran in to the land and picked up our position off Cape Shipunsky at daybreak. The coast is steep-to, and as we passed close to the fine cliffs and headlands which oppose the by no means tranquil Pacific, there lay the *neiges d'antan* bewailed of Maistre François Villon,—huge patches of last year's snow, choking the gullies down to the water's edge. That they should have remained throughout the hot summer in a south-east aspect was astonishing, and gave some idea of the severity of the climate in these latitudes, but the absence of the usual autumnal rains no doubt in great measure accounted for it.

Before reaching our anchorage just within the entrance of the bay, we could distinctly make out small herds of the animals of which we were in search on the slopes of the cliffs, which here rose to a height of five or six hundred feet, precipitous in some places, but in others forming a sort of under-cliff covered with brushwood. We lost no time in settling our plan of action. Judging that the bighorn were confined to the promontory near which we had anchored, we resolved upon surrounding it, sending four guns to the top of the cliff, whose sea-face extended east and west for a distance of about three miles,

and posting two others upon the beach below. The former, ascending in rear from the shores of the bay, reached their destinations with some difficulty, the undergrowth being so dense and strong that, but for the bear-paths with which it was cut up in all directions, it would have been impenetrable. At the edge of the cliff progression was somewhat easier, and on looking over we found ourselves in close proximity to the game. Owing to the excitability of Jacof, who had got some distance ahead, we began the day in a manner I hardly like to recall. The wretched Russian, totally oblivious of the fact that the bighorn were possessed of quite as good eyes and ears as ourselves, danced wildly at the cliff's edge, shouting and gesticulating for us to come on. Struggling madly through the dense brushwood, hot, panting, minus portions of our clothing, and with rage at our hearts, we arrived just in time to get a couple of ineffectual shots as the game disappeared round a corner. My sporting readers will have little difficulty in realising our feelings; and as it was evident that Jacof's *forte* lay rather in hunting sables than other game, we at once sent him, like the unlucky commoner in Mr. Punch's aristocratic battue, to "take the chance of a hare back." We felt that after such a fiasco we could hardly expect or deserve success.

The fates, however, were more propitious than the most sanguine of us had dared to hope. Before mid-day I had bagged three bighorn, and, as I afterwards learnt, most of the other guns had been nearly as fortunate. Anxious to get the game on board before nightfall, I started for the yacht, and wishing to save myself the long round by the top of the cliff, attempted to cross an intervening belt of fir-scrub in order to reach some open grassy ground farther inland. I soon found that the task was far more difficult than I had imagined. The thicket was of old growth, and covered the ground breast-high, the surface everywhere being perfectly level. Contrary to what is usually seen near a coast, the branches grew seawards, and interlacing in every direction, formed a dense mat through which it was almost impossible to force one's way. I had barely gone ten yards before I became jammed in a position from which I extricated myself only with the very greatest difficulty. As I progressed, the bush became, if anything, more impassable. Cumbered with a heavy rifle, and already somewhat tired with the morning's exertions, I got gradually more and more exhausted. My legs became constantly wedged in the forks of the branches which were too tough to break, and with my feet scarcely ever upon the ground, I fell again and again, lying where I fell from sheer fatigue. The little strip of bush was barely a hundred yards across, yet, absurd as it may seem to those of my readers who have had no experience of the denseness and impassability of the vegetation in these and similar regions, I more than once wondered if I should ever get through. I have

certainly never been more completely exhausted than when I finished the last yard and rolled helplessly upon the grass on the other side.

After a rest on board the yacht I rowed along the coast to pick up the game, two of which had rolled down five or six hundred feet upon the beach below. Passing beneath the cliff at the entrance of the bay, we witnessed the death of a bighorn under unusual circumstances, for the animals are in general as sure-footed as a chamois. A couple of them had been driven into a corner by some of our party at the top of the cliff, but one broke back almost immediately. The other, perched on a little pinnacle at the edge of the precipice, seemed about to follow

KAMSCHATKAN BIGHORN. (*Ovis nivicola.*)

its comrade, but hesitated, turned, and ran back. As it did so its foot slipped. It checked itself for a moment, slipped again, made one desperate effort to regain its footing, and was over in an instant. The creature never moved a muscle as it fell, and hit the rocks four hundred feet below with a dull scrunching thud, breaking one of the massive horns short off, and converting the hind quarters into a shapeless, bleeding pulp.

Before dusk we had got on board no less than nine bighorn, and the yacht's decks were more like a butcher's shop at Christmas than anything else. We were busily engaged in measuring, skinning, and

weighing during the evening, and when, wearied with the day's exertions, we turned in for a well-earned night's rest, we looked forward to the prospect of equally good sport on the morrow.

The general colour of the Kamschatkan Wild Sheep (*Ovis nivicola*, Eschscholtz) is a brownish grey, and the hair of those we obtained was very long and thick, so much so that we concluded that the animals had assumed their winter coat. The head and neck are more distinctly grey than the rest of the body, the forehead is marked with an ill-defined dark patch, and the lips are nearly white. On the anterior aspect the legs are of a dark glossy brown, but posteriorly a narrow white line runs down the entire length of the limb. The tail is short and dark brown; the rump and the centre of the belly pure white. The ears are remarkably short.[1]

The Bighorn in Kamschatka appears especially to frequent the precipitous slopes of the sea-cliffs, though it is met with in some numbers in the interior of the peninsula. We had evidence of its occurrence in the mountain ranges near Gunal and Narchiki in the Bolcheresk Valley, and it probably exists at low altitudes on the great volcanoes near the mouth of the Kamschatka River. Every one of those we shot was a male,—their ages ranging, as far as we could judge, from three to six years. They kept in small herds of from three to nine individuals. As in the case of others of the same genus, the females and young males doubtless keep apart, but we were not fortunate enough to discover their habitat, neither could we obtain any information about them from the natives.[2]

Early next morning the most enthusiastic of our party proceeded in the lifeboat to the ground of the preceding day, hoping to add still further to the bag, while two of us started to explore the magnificent harbour at the entrance of which we lay. Betchevinskaya Bay, the position and extent of which is but roughly indicated in the Russian charts, is a narrow inlet some five miles in depth, girt with precipitous cliffs of three or four hundred feet for the seaward third of its extent. At this point two low and narrow strips of beach run out from the base of the cliffs on either side, leaving a passage barely fifty yards in width in the very centre of the fjord, but deep enough to admit a vessel of the largest size. Within this the cliffs disappear, and an extensive and

[1] Sir Victor and Mr. Basil Brooke in their article on Asiatic Sheep in the "Proceedings of the Zoological Society" (1875, p. 509), remark on the resemblance of the horns of this species to those of the American Bighorn (*Ovis montana*), with which, indeed, it has by some naturalists been regarded as identical. But the uniformly smaller size of the head, the shortness and great breadth of the skull in its anterior aspect, the slight development of the pre-orbital fossa, and the protuberance of the orbit itself, served markedly to distinguish the Kamschatkan species. The horns are less rugose than those of *O. montana*; their frontal surface is convex; the orbital surface at first concave, then flat, thus causing the fronto-orbital edge to be very sharp. The nuchal surface is convex, and afterwards flattened, and the two remaining edges are rounded.

[2] Cf. article by the author *On Ovis nivicola*, "Proc. Zool. Soc.," 1885, p. 675.

perfectly land-locked basin is entered, surrounded by high hills sloping gradually to the water's edge—as good a harbour as it is possible to imagine. Of the mode of formation of the two promontories I have just alluded to I can offer no explanation. They are so unnatural in

SKULL OF *Ovis nivicola.*

The following are the measurements obtained from a series of nine skulls :—

	Inches.								
Length of skull	10½	10½	9¾	10¼	10¾	9¾	10½	10¼	...
Breadth between orbits . . .	5¾	5¾	4¾	5½	5¾	5½	5½	5¼	...
Length of horns round curve . .	35	34¾	24	32¼	35½	38	32½	26½	35
Circumference of horns at base .	13¼	14½	13	14	14	13½	13¾	12½	13¼
Horns from tip to tip . . .	21	25	17½	21	26½	26	22½	21½	25½

Measurements in the flesh of twelve specimens, all of which were adult males, were also taken, and are as follows :—

Supposed age (years)	3	3	5	5	5	5	6	6	6	6	6	6
Extreme length .	65½	63	62	64	64	66	66	65	66	66	67	67
Greatest girth . .	53	53	56	54	55	...	56½	...	54	53	54	55
Height at shoulder .	38	39	38	39½	37	...	40	41	40	37	40½	39

appearance, and so closely resemble artificial breakwaters, as at once to attract the notice of the most careless observer. The long spit of beach running out at the entrance of Petropaulovsky harbour is of exactly similar formation, and the same phenomenon is said to occur at other places along the coast. Nature is not very lavish of her harbours on these shores, but the few that exist are excellent.

As we entered, the placid surface of the inner basin was dotted in every direction by the square black heads of seals, of which there appeared to be enormous numbers. But as we intended to try for bear at the head of the bay we left them in peace. The wind, however, sprang up and blew directly inland, and all chance of sport being under these circumstances reduced to a minimum, we reluctantly returned. That bear were very abundant in the neighbourhood was evident from the numberless fresh tracks, and from the fact that we saw seven in two days, but owing to their shyness and the dense undergrowth they frequent, they are not easy to shoot. We had therefore to turn our attention to the seals, whose skins Jacof seemed anxious to obtain. They were the ordinary *Phoca vitulina* of our own coasts, or a very closely-allied species.

Landing on the natural breakwater on our way back, we were astonished to find a spring of fresh water close to its extremity. The pools formed by it were covered with teal and other duck, and with these and a stray golden plover or two we had good sport. The place seemed to be a favourite resort of bears, who had formed numerous paths to the spring; but ill-fortune once more attended us, and we had to be content with a distant view of one of these animals, who made off at full speed. We returned to the *Marchesa* to find that considerable additions had been made to the bag by the other party. Four more *Ovis nivicola* and a walrus had been killed, the latter carrying very fine tusks, nearly two feet in length. Hunting these creatures is after all but a sorry business. In order to afford sport an animal should either fight or run away. The poor walrus does neither—at least to any purpose—and having once killed one, no sportsman would care to repeat the performance.

I have been led to describe the events of our two days' visit to Betchevinskaya Bay as an illustration of the abundant sport to be obtained in Kamschatka. Our total bag consisted of one walrus, fourteen bighorn (one, falling in an inaccessible place, was not brought in), and some seals, besides teal, duck, and golden plover. Had we been ordinarily fortunate we should also have obtained two bears, which, though badly hit, managed, owing to the denseness of the scrub, to escape. We found the bighorn meat delicious; it was declared on all hands that no such mutton had ever been tasted before. Our men were in their element salting down and preserving, and were

unanimously of opinion that there was no country like Kamschatka, where salmon, grouse, and mutton were to be had for the killing. The ship was hung with carcases, which some facetious individual had labelled with placards "FIRST PRISE, PETREPAULSKI CATTLE SHOW"; "PRIME, 11½d. per pound"; "CUTTINGS, 6½d." and so on, and steaming joints of mutton graced the board at every meal in the forecastle mess.

It was on the evening of our second day's stay that one of our party came in for an adventure which was near having a very unpleasant ending. After bringing home the bighorn, he had started late in the afternoon for the sea-cliffs on the other side of the bay, with the intention of inspecting the ground for those animals and walrus rather than with any definite idea of shooting. The sea being quite calm, he had taken the skiff with only one hand, intending to return shortly after sunset. At nightfall they had not arrived, and after waiting a little while longer the lifeboat was manned and sent across the bay in search. An hour or so later, having heard nothing further, we proceeded in the cutter in the same direction, with extra hands in case of need. On our way we met the skiff returning, and learnt that, as we feared, our companion had no doubt lost his way in the bush. He had climbed a difficult cliff just after landing, and not liking to risk the descent, had told the coxswain of the skiff to row along the shore until he came to an easier part, and to wait for him there. It was then growing dusk, and although he had waited several hours and rowed up and down the coast firing signals—for the rifle had been left in the boat—nothing had since been seen of him. In any ordinary country we should have felt but little anxiety, as, with the sea to the S.W. and the inlet to the S.E., it would have been difficult to take a wrong course. But knowing the almost impenetrable nature of the bush upon the other side of the bay, we feared lest he should succumb to exhaustion and exposure, for the night was bitterly cold.

It was surmised that he would most probably attempt to make his way across to the inlet—a distance of about two miles—as inland the bush was less thick, and if he could succeed in reaching the cliff he would be within sight of the ship, and would be able to make signals. Accordingly a search party of six men, provided with lanterns and ropes, started to scale the cliff, which was about 400 feet in height. It was a task requiring all the nerve of an experienced climber. Dangerous enough by day, it was ten times more so by the uncertain light afforded by the lanterns, and it was with the keenest anxiety that we watched the specks of light slowly working up the face of the precipice before us. Half way they came to a part so difficult as to be almost insurmountable, and here an accident occurred to one of the party which was within an ace of proving fatal. While springing on to a higher ledge he missed his footing and slipped back, and had it not

been for the pluck and presence of mind of one of his comrades, who, although himself on a most insecure foothold, leant forward and managed to check his descent, nothing could have saved him.[1] At length, after what seemed an interminable time, they reached the summit, and the lights immediately disappeared.

It was now early morning, and we were discussing the advisability of starting with another party or of waiting until daylight, when we noticed a light at the edge of the cliff farther up the inlet. It had, however, been sighted some time previously from the ship, and a boat arrived almost immediately afterwards with another party to aid in the search. Our anxiety as to our friend's whereabouts was now at an end, but getting at him was another affair, for the cliffs at this spot were almost perpendicular, and we were forced to go some distance farther before finding a place where the ascent was practicable. Half an hour later we found him, very cold and exhausted, trying to warm himself at the fire which, fortunately for himself, he had been able to light.

It appeared that, after leaving the skiff, he had sought in vain for any spot where a descent was practicable, and darkness having come on, he had lost his way in one of the dense thickets I have described. After this he had steered south-east for the inlet, fighting his way through thick bush for the greater part of the distance. Although much exhausted, he dared not rest for long on account of the cold. At length, after a seven hours' struggle, he reached the cliffs of Betchevinskaya Bay, and knew that he was safe. Fortunately there were no fir-thickets to contend with such as I had found on the other side of the bay, or the adventure would probably have had a different ending, but it will probably be many years before he forgets the night he spent when lost in the Kamschatkan bush.

On the evening of September 23rd we found ourselves once more in Petropaulovsky harbour. The Russian man-of-war *Afrika*, employed in the protection of the Komandorski group, and in surveying the coast, was in port, and also the *Alexandria*, a San Francisco steamer which pays an annual visit to Petropaulovsky to take away the furs. During our expedition through the peninsula the *Afrika* and *Vestnik* had consecrated the monument in memory of the affair of August, 1854. This monument, an obelisk about twenty-five feet high, was erected in the previous year by the *Vestnik* on the spit of land forming the natural breakwater of the harbour, the materials having been brought from Russia. It is of stone, painted black, and surmounted

[1] The name of the man who so pluckily risked his life deserves to be recorded. Samuel Scarff, who at a later period of the voyage became boatswain, was a universal favourite, and when in the following year he succumbed to the effects of the climate during our cruise to New Guinea, his loss was very keenly felt by all of us.

with a gilt "morning star" and cross. On the eastern side is the following inscription in Russian :—

IN MEMORY OF THE FALLEN
AT THE
REPULSE OF THE ATTACK OF THE ANGLO-FRENCH FLEET,
20TH & 24TH AUGUST, 1854.

And on the reverse side :—

ERECTED IN 1881.

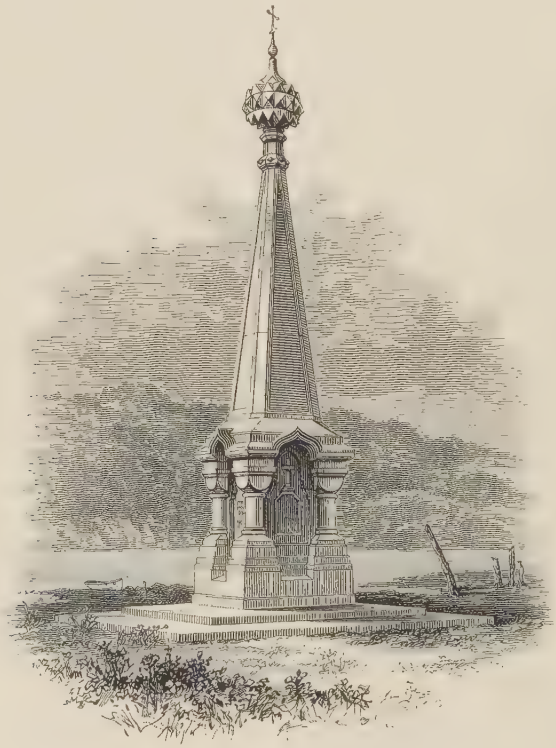
Before the consecration the blue-jackets were marched to the little palisaded enclosure, where, under three crosses, the Russian, French, and English dead lie buried side by side. Here a long prayer was offered over the Russian grave ; but when the Captain of the *Vestnik*, in deference to the presence of some of the yacht's party, desired that the pope would perform the same ceremony over those of the French and English, he utterly declined![1] Later in the day the monument was unveiled ; the crews of the Russian vessels being drawn up in line, and the royal salute fired. The affair was wound up by a déjeuner given on board the *Vestnik*, and some hard drinking by the Petropaulskians, which resulted in the death of a Cossack next day.

Nowhere has one a better opportunity of watching the habits of pet animals than on board ship, and on the *Marchesa*, where they were permitted to roam at large, causing occasionally no small amount of astonishment and alarm to our visitors, they were seldom out of our sight for long. On our return from New Guinea the yacht was little more than a floating menagerie,—a happy family of cassowaries, wild pigs, kangaroos, and a host of other creatures ; but northern regions are not very productive of pets, and our chief favourites at this period of the cruise were only three in number,—the fur seal ; Misky, a large, but not fully adult bear presented to us by the Russian officers ; and a charming little Siñhalese mongoose. The fur seal, known to the sailors as Tommy, flopped about the deck with the ungainly semi-paralysed gait peculiar to his species, choking and spluttering with mingled fear and rage when any one approached him. Every day we lay in harbour a long line was fastened to his hind flipper, to the end of which a life-belt was attached, and thus buoyed he was put overboard to swim about or go ashore as he pleased. His manner of feeding was curious, any fish he was provided with not being snapped up immediately, but played with and mouthed all over for a quarter of an hour or more, when it suddenly disappeared as if by magic. Poor Tommy was in a very feeble state of health when he came into

[1] I should mention that the Russian officers were much annoyed at this act of discourtesy, and came on board to apologise for their countryman, whom they descibed as being "only an ignorant peasant."

our possession, and his death, which took place just before we left Kamschatka, was not unexpected. Though dead, he yet lives—in spirit.

Misky, though a great favourite with every one, was perhaps not altogether a source of unmixed pleasure to us. To an unsuspecting visitor the sight of him bearing down at a loose trot to investigate



MONUMENT TO THE AFFAIR OF AUGUST, 1854.

matters was anything but reassuring, and it was in vain for us to tell our guests that it was "only his fun." A gallant lieutenant coming on board one day in full dress proved too great a temptation for Bruin, who immediately seized him by the coat-tails. It was found impossible to make him let go until the discomfited officer had reduced himself to his shirt sleeves, when, delighted with his success, the delinquent shuffled off. He was apparently almost indifferent to pain. A smell of burning being one day discovered forward, one of the crew

proceeded to investigate the cause, and found Misky standing upright on the top of a nearly red-hot stove, engaged in stealing cabbages from a shelf above. He was growling in an undertone and standing first on one leg and then on the other, but he nevertheless went on slowly eating, heedless of the fact that the soles of his feet were burnt entirely raw. Endless were the stories about him, and the scrapes he got into, but punishment was apparently in vain, for he got worse as he grew older; and after having devoured portions of the cabin skylight and a man's thumb, and finished by drinking the oil out of the binnacle lamp, he was shipped to England, and found a new home in the bear-pit in the Zoological Gardens.

Misky's sworn enemy was the mongoose, into whom seven devils at least had entered. His sole object in life was mischief, and it must be confessed that he never idled for a moment. Whether biting one's toes as one lay asleep in the early morning, capsizing the ink-bottle, or bolting surreptitiously with some coveted morsel from the dinner-table, he was never still, but his greatest happiness,—for it was attended with that spice of danger which gives the true zest to sport,—was to "draw" Misky. When that unsuspecting animal rolled its unwieldy body about on deck, ignorant of the proximity of his enemy, the mongoose would approach noiselessly from behind and nip him sharply in the foot. Long before the huge paw had descended in a futile effort at revenge the little rascal was safely under cover, on the look-out for another opportunity, and the bear might just as well have attempted to catch a mosquito. A more thorough little pickle never existed, but, like all pickles, he was very popular, and when one morning he disappeared never to return there was great lamentation among our men. We never learnt his fate. Probably Misky had caught his tormentor after many months of vain endeavour, and had dined off him.

We left Petropaulovsky on September 26th with the intention of visiting the coast towards Cape Lopatka. Even as far south as Avatcha Bay the nights had become bitterly cold, and warned us to take our departure if we meant to avoid the heavy gales that visit these latitudes at the onset of winter. We steamed out of the harbour over a sea so calm that the glare of golden light which lit up the western sky was reflected in its surface as in a mirror. Never had the bay and its grand volcanoes looked more beautiful, and we stood watching the blaze of colour fading over the yellow birch-clad hills and the lonely pyramids of snow beyond until the last ray of daylight had disappeared and the full moon had turned the landscape to a harmony in black and silver.

Next morning a thick fog hid the coast from view, but cleared as the sun got up, and we were able to pick up our position. About noon we found ourselves off an island abreast of the Itterna Volcano, and

steaming into a bay close by, we scanned the coast for signs of a sea-otter-hunters' village, of whose existence we had heard through Afanasi. Not a trace of it was to be seen, and we were beginning to think that we had misinterpreted our directions when a couple of little canoes shot out from behind a point and paddled towards us at great speed. As these neared the ship we saw that they were built somewhat on the model of a Greenlander's *kayack*, although not broader than the narrowest of Thames cedarwood canoes. How they can live in an ordinary sea is little short of miraculous, but we afterwards learnt from the people that two or three boats invariably proceed in company when engaged in hunting the sea-otter, and that during heavy weather they lash them together with the paddles, by which means even a moderate gale can be safely encountered.

SEA-OTTER ARROW.

The natives piloted us into a small bay which, protected as it was by an island[1] and a long reef running out from the mainland, afforded fairly good shelter in all winds. At the head of it stood the village, almost invisible at a little distance, composed entirely of underground yourts, whose smoke-begrimed interiors were not inviting to a European. We had hoped to find many skins of the sea-otter here, but were disappointed, the whole village only producing two. We became possessors, however, of what, though less valuable, was of more interest,—the bow and arrows with which these animals are killed. The former is a tough piece of wood five or six feet in length, which is enormously strengthened by a band of plaited hide on the outer face, so tightly fixed as to give the bow a curve in the opposite direction when unstrung. The arrows are of wood for three-quarters of their length, fitted with feathers attached diagonally along the shaft, so as to produce a rotatory motion. The remaining portion is of walrus ivory, provided at the end with a socket, into which a barbed copper point is inserted. This is connected to the arrow by a long string of plaited sinew wound around the shaft. When the otter is hit, the barb, which is very loose, becomes at once detached, and if the animal gain the sea, its whereabouts is revealed by the arrow floating above it.

The canoes used by these people are of extremely graceful shape, and so light that they can be lifted in one hand with ease. They are constructed of a wooden skeleton framework of the slightest possible description, covered with the skin of

[1] This island, which is not marked in the chart, was named by us after Lieut. R. ff. Powell. It is in Lat. 51° 33 N., Long. 157° 50 E., and is about two miles in length. The coast at this part is placed too far to the eastward.

the Sea-Lion (*Eumetopias*), beautifully sewn. The circular opening for the occupant is very small, and the ingress of water is prevented by a sack-like skin apron which is tightly tied beneath the arms. These craft are astonishingly crank, so much so that one of our party, by no means a tyro in such matters, found the greatest possible difficulty in sitting one, even in smooth water. They are made in three sizes,—for one, two, or three persons.

We entered into negotiations for the purchase of one of these boats, as well as our want of a common language permitted. Vodky—the curse of Kamschatka—was the one idea of the natives, and we might doubtless have bought the craft, furnished with bow and arrows and all

OTTER-HUNTER'S CANOE, POWELL ISLAND.

necessary gear, for three or four bottles of this spirit, had we felt inclined, for these people would sell their very souls for brandy were they only marketable commodities. The bargain was concluded eventually for thirty roubles, but though the dealing in money saved our consciences, it probably came to much the same in the end as if we ourselves had supplied the natives with spirit. Directly the snow was sufficiently hard for sledging, the owner of the roubles would no doubt start for Petropaulovsky, and turn them into vodky without loss of time.

We could make out nothing about the nationality of the people of this village. We had been told that some Aleuts from the Bering group had settled in this neighbourhood, but it seems that the Kurile islanders have also passed northward, and established themselves on the coast near Cape Lopatka. To us it appeared that they did not differ appreciably from the Kamschatdale type, but the opinion of a mere passer-by on these matters is usually valueless. Nothing certain is at present known of the origin of the Kamschatdales and Koriaks—the aboriginal

tribes of the peninsula. Both appear to have become greatly reduced in numbers since the Russian conquest. As a pure race the Kamschatdales are now rare, except on the western side of the country. The Koriaks rarely or never come south of the Tigil River. They are a nomad race like the Lapps, owning reindeer and living in movable tents, and, like them, coming down to the lower ground in winter. Both these tribes belong to the "Hyperborean" unclassified group, and Mr. Keane[1] considers the Koriak as probably the parent stock of the sub-arctic races of this part of the globe. Their language as shown by the vocabulary of M. de Lesseps, although bearing but a faint resemblance to the Kamschatdale, is closely allied to that of the Tchuktchi tribe in the region of the Anadyr, and it is possible that, ethnically as well as geographically, they form a connecting link between these two latter peoples.[2]

I am not aware that the presence of Lamuts in Kamschatka has ever been recorded by previous writers, but while on our journey through the country we were told by Afanasi Waren, who was well acquainted with both the Koriaks and Kamschatdales, that a small number of this race lived in the mountains in the heart of the peninsula. He described them as fjell people, great hunters of *Ovis nivicola*, and owning reindeer, which they occasionally brought in for sale to Melcova and other places on the Kamschatka River. That the Lamuts, who are of Tungus race, should have established themselves in such an isolated position is curious, but we had no reason to doubt the accuracy of Afanasi's information. De Lesseps in his "Travels in Kamschatka" gives a vocabulary of the Lamut language, but, as he mentions nothing of this people in the peninsula, it is most probable that it was obtained in passing through their country in the neighbourhood of Okhotsk and the Judoma River, on his return to St. Petersburg.

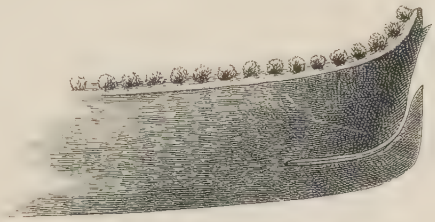
On the 27th we bade a final adieu to Kamschatka. We had more belief in the cold southerly current than in the continuation northwards of the Kurosiwo, of which we had vainly endeavoured to take advantage in our voyage from Japan; and we accordingly set our course for that country so as to keep a few miles only to the eastward of the Kurile chain. Had we known what was before us we should probably have given the land a wider berth. We had no idea that we were destined to come in for two gales and a typhoon before we reached the welcome shelter of Yedo Bay.

We steamed on quietly enough against light to moderate southerly

[1] "Asia." Stanford's Compendium of Geography and Travel.

[2] The accidental immigration of Japanese must be regarded as a not unimportant factor in the composition of the Kamschatdale race. Short as is the period that has elapsed since the Russian conquest, it has furnished several instances, recorded by Krasheninikov, of Japanese junks having been driven from their course and wrecked on the shores of the peninsula. This chance peopling of the country has, no doubt, been going on for centuries, and it is probable that but few of the immigrants ever regained their native land.

winds until the morning of September 29th, when we experienced a gale from the south-east, which increased in force as the day wore on. At 6 P.M. we altered course, and stood in towards Simusir Island until midnight; a high sea running and the vessel pitching heavily. The wind then slackening somewhat, and veering to south-west, we kept away on the other tack. By the afternoon of the 30th the gale had practically blown itself out, and we resumed our original course with a fresh breeze from the north-west.



BOW OF KURILE CANOE.

Early next morning the wind had fallen so light that we had to recommence steaming. At noon we were in Lat. 44° N.; Long. 148° 44′ E.; the barometer standing at 30.42 inches. In the afternoon we sighted Eturup or Staten Island, the penultimate and largest island of the Kuriles. It had fallen a "clock calm" in sailor language, and all hands found it a great relief after the knocking about we had experienced during the two preceding days. It was not for long, however. During the afternoon a uniform grey haze came over the sky, and a large halo was noticed round the sun. An ominous, long swell came up from the southward, and at 8 P.M. an easterly breeze, accompanied by sharp showers of rain, prepared us for the onset of a dirty night. The barometer had begun to fall at 4 P.M. We had hoped to reach Akishi Bay, on the coast of Yezo, early the following day, but through the night the weather grew steadily worse, and at 5 A.M., the wind having increased to a strong gale, and the weather being far too thick to attempt to make the land, we altered course to S.W. by W., being then, by dead reckoning, 16 miles off Cape Usu, the easternmost promontory of Yezo. An hour later the wind backed to E. by N., the rain descending in sheets; and taking everything into consideration, we concluded that we had fallen in with a typhoon travelling north-eastwards, an unusual phenomenon in such high latitudes.

By eight o'clock the *Marchesa*, under storm canvas, was running before the heaviest gale she had yet encountered, in the endeavour to get as much sea-room as possible. The law of these circular storms is so well known and so invariable that, under ordinary circumstances, there is no difficulty in handling a ship so as to bring her as quickly as possible out of the track of the hurricane. But here our proper course —west—was impracticable on account of the land, and we were driven into the unpleasant alternative of having, in all probability, to meet the centre of the storm.

CHAPTER XI.

CAGAYAN SULU.

On the 21st of March, 1883, the *Marchesa* left Hongkong for the Malay Islands and New Guinea, having spent a few weeks at Foochoo and other treaty ports of China—well-trodden paths into which I will not ask my reader to accompany me. Our original intention was to visit the new English colony in North Borneo, and thence to proceed *viâ* the Sulu Archipelago and Celebes to the Moluccas. At a later period the plan of the voyage was slightly altered, and after leaving Sulu we returned to Singapore to refit and take in stores before finally sailing on our Papuan cruise.

Within two hours of leaving our anchorage in Victoria harbour we were meeting half a gale of wind from the east, accompanied by an unpleasantly rough sea. On the following day the wind had backed to the N.E., the sea had run down, and things were more comfortable, and on Easter Sunday, March 25th, we came to anchor off Lamery in the island of Luzon, some forty or fifty miles to the south of Manila.

Lamery is as fertile-looking a spot as one could hope to meet with even amid these isles of perpetual summer. Sloping gradually upwards from the sea, it is backed by a conical volcano of no great size, which appears to be extinct. The ground is highly cultivated, and the sugar-cane—the principal crop—looked wonderfully well at the time of our visit, covering the country with a mantle of the richest green. From here Taal, with its extraordinary lake volcano, is barely an hour distant. From the middle of a mountain-lake fifteen miles long, surrounded by very high hills, and probably itself an extinct crater, this volcano rises to the height of two thousand feet. Reaching the summit of the island thus curiously formed, the bottom of its crater is seen to be covered by a sheet of water nearly a mile across. The country in the neighbourhood of Lamery seemed thickly inhabited, and we learned from a half-caste that the combined population of the Taal and Lamery districts was as much as 46,000. The latter village is of somewhat peculiar aspect, for though the houses are almost all of the type usually met with in the Philippine Islands—that is to say, of palm-leaf mats with

Stanford's, Geog.l Estab.t London

high-pointed roofs—they surround a most solid-looking and incongruous cathedral, built of stone, and nearly 100 feet in height, which is visible at sea from a distance of ten miles or more.

Our stay in this beautiful district, whose only drawback seemed to be the existence of cholera, was limited to a few hours only, and on the following day we weighed anchor and rounding Cape Calavite, ran down the western side of Mindoro into the Sulu Sea. These waters are studded with numerous shoals and small islands, the position of which, owing to the imperfect survey, is in many cases doubtful, and for the first time we had a man at the masthead on the look-out. From this elevation shoal water is readily detected by the difference in colour, and for many months subsequently this precaution was as regularly observed as the manning of the "crow's nest" in an Arctic vessel. On the 28th March we passed close to Bancoran—a lonely lagoon islet of the San Miguel group—whose lofty trees appeared literally covered with thousands of snow-white birds, which from their colour and flight could have been none other than the Bornean Nutmeg Pigeon (*Myristicivora bicolor*). The calm lagoon and the refreshing green of the trees, as well as the promise of abundant sport, tempted us sorely to try our fortune ashore, but time presses even in the Sulu Sea, and we decided on continuing our course. Shortly after midnight we dropped anchor on the south-west side of the island of Cagayan Sulu.

If the reader consult a map of this part of the world he will notice that the north-eastern part of Borneo presents a more or less straight coast-line, from the eastern end of which the Sulu Archipelago runs like a chain connecting it with the Philippines, while the long island of Palawan and others of lesser note form a similar link at the western extremity. The space thus enclosed is known as the Sulu or Mindoro Sea, within which, in a nearly central position, lies Cagayan Sulu. The island is practically independent, although nominally under the authority of the Sultan of Sulu. We had been led to visit it for several reasons. To the naturalist its isolated position between two countries possessed of such a different fauna as the Philippines and Borneo, offered an interesting problem, while of the great beauty of its scenery we had read in Admiral Keppel's "Cruise of the *Mæander*." At the time of his visit, in company with Rajah Brooke, two curious crater-lakes had been discovered on the south coast, but since then, with the exception of a visit of H.M.S. *Nassau* for surveying purposes in 1871, few vessels seem to have anchored off its shores.

Shortly after daybreak on the morning after our arrival the Pangerang or chief came on board—a quiet, domestic-looking old man without followers of any kind, with the exception of half a dozen men who had paddled him to the ship. He was dressed in ordinary Malay costume, which is simple and comfortable enough in climates such as these.

Round the waist is worn the *sarong*, a silk or cotton garment about the size and shape of a small table-cloth, which is simply wound twice round the body and the end tucked in. It falls like a petticoat nearly to the feet. A short jacket, the *baju*, is usually the only upper garment, and is often left open down the front. The head-dress differs according to the locality, but the *sarong* and *baju* are invariable, and are worn alike by rich and poor throughout Malaysia. The latter garment is often of unornamented black silk, or some equally plain material, even among the most wealthy, but the *sarongs* of those of high rank are generally of most beautiful workmanship, ablaze with gold thread, and of great weight and value. Our visitor, however, wore nothing of this description, and was evidently a man of more intelligence than wealth, but he carried a beautiful *parang* —a most murderous-looking weapon of a shape peculiar to this island and those of the Sulu Archipelago. It has the appearance of a sharp-pointed meat-chopper striving by a process of evolution to become a sword, and with its great weight and razor-like edge, is capable of cutting a man's body completely through at a stroke. Fortunately these weapons are more frequently used for other purposes, and are admirably adapted for clearing a path in the thick jungle or for opening coconuts. Some that we saw afterwards in Sulu had well-carved ivory handles, and the hilts were in many instances of silver. They appear to be all made by the native workmen in Sulu Island, and are worn by every male almost from the time when he is strong enough to carry one.

SULU PARANG.

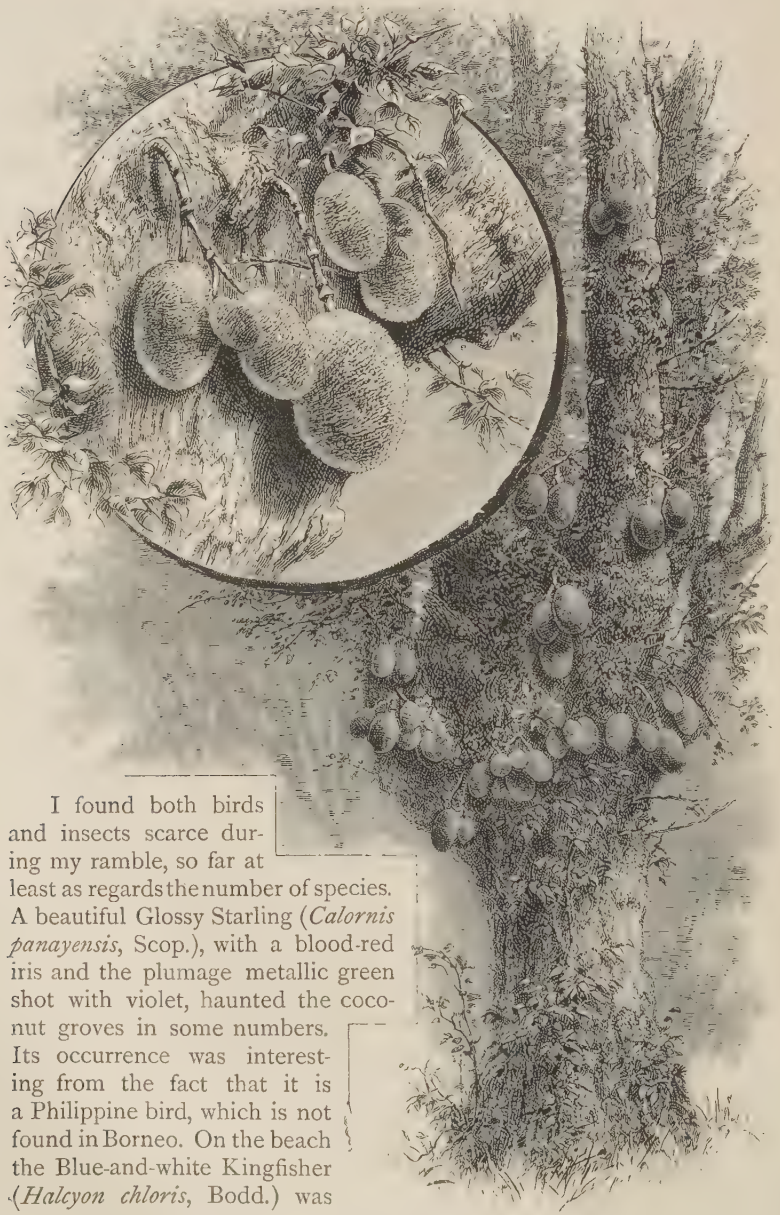
The Pangerang smoked small cigarettes of Chinese tobacco rolled in the thin dried leaf of the Nipa palm, and chatted in Malay to one of us who was conversant with that language. He told us that the Spanish gunboat *Sirenia* had visited the island in April, 1882, and had given him two documents, of the contents of which he was ignorant. He brought them for our inspection, and we found one of them to be a certificate addressed to Spanish ships, and stating that the Pangerang was to be trusted; while the other was a sort of passport to enable the latter to visit any of the Spanish possessions. On learning our nationality the old fellow became communicative and confided to us his dislike of the "Castillans." It appeared that the captain of the *Sirenia* had given him a Spanish flag with instructions to hoist it on the arrival of a vessel, telling him at

the same time that the island was a Spanish possession, and that the flag had been sent by the Sultan of Sulu himself.[1] He said that for his own part he acknowledged no sovereignty but the Sultan's, but added that he would be afraid not to hoist the flag in the event of a visit of a Spanish man-of-war.

Beautiful as are almost all tropical islands, I do not think I have ever seen one more captivating than Cagayan Sulu. Mr. St. John calls it a "true gem of the ocean"; and as the boat glided over the coral-gardens, bright with vividly-coloured fish, and landed me, gun and collecting-box in hand, on the snowy sand, I felt as if I could cast off civilisation and European clothes alike, and cultivate my mealie patch and grove of coconuts with the natives for the remainder of my natural life. It is the feeling that every lover of Nature doubtless has on revisiting scenes like these, but in ninety-nine cases out of a hundred we should soon find ourselves sighing for our morning papers, and calling the place a "wretched hole," were we to try the experiment. The sauce of life is variety, and just as the restraints and conventionalities of civilisation become after a time unbearable to those of us who have once tasted of the sweets of rough travel, so there are occasionally moments when, even in Palm-grove and Coral Land, the thought of a high hat and a white shirt is actually not unpleasing. Habit is, after all, too strong for us, and however often we may succeed in breaking its bonds, there must sooner or later come a time when we are willing once more to adjust the noose around our necks with our own hands.

I had no wish of this nature in Cagayan Sulu, nor indeed have I ever felt it except when suffering from illness, and I passed through the thick coconut groves, and found myself in the open bush country beyond, with all the pleasurable feelings of a naturalist when he knows that he is on untrodden ground. The island, which is about five miles in length by four in breadth, is purely volcanic, and the soil, to all appearances, very rich. It is for the most part low and undulating, the highest elevation being only 1100 feet, but several extinct volcanoes of small size exist, whose sides, strewn with lumps of slag and scoriæ, permit only of the growth of coarse lalang grass. In the little valleys, or along the seashore, the mat-shed houses, elevated on piles, are shaded in pleasant groves of banana, coconut, jack-fruit, and durian trees. Cultivation appears to be but little undertaken, and though yam, sweet-potato, and tapioca are grown, it is not to any great extent, and the islanders seem to live chiefly upon fruit and fish. The latter are caught in great numbers, for, the island being surrounded by a fringing reef, the natives can coast its shores in all weathers in tolerably smooth water.

[1] We learnt afterwards from the Sultan that this was a pure invention on the part of the Spaniards.



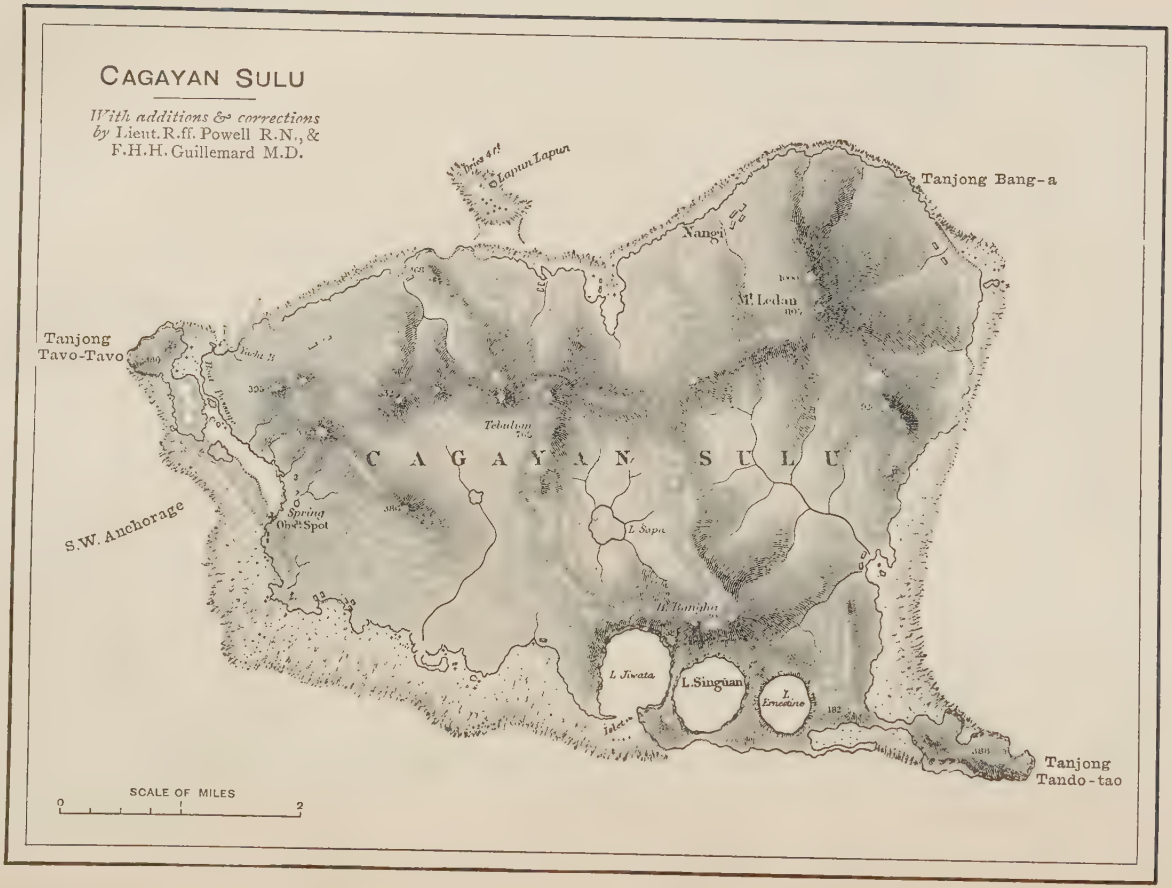
JACK-TREE. (*Artocarpus integrifolia*).

I found both birds and insects scarce during my ramble, so far at least as regards the number of species. A beautiful Glossy Starling (*Calornis panayensis*, Scop.), with a blood-red iris and the plumage metallic green shot with violet, haunted the coconut groves in some numbers. Its occurrence was interesting from the fact that it is a Philippine bird, which is not found in Borneo. On the beach the Blue-and-white Kingfisher (*Halcyon chloris*, Bodd.) was

equally abundant, sitting motionless on the branches of the trees overhanging the sea, and from time to time uttering its loud, laughing note. One of the most generally distributed of all birds in this part of the world, it is found from the Red Sea to the farther side of New Guinea, and the little patch of turquoise blue that reveals its presence is one of the most familiar objects to the naturalist as he skirts the mangrove-girt creeks of the islands of the Malay Archipelago. Other birds were few and shy, and as it shortly afterwards came on to rain heavily I returned to the ship. At this time,—the changing of the monsoons,—there is a good deal of wet weather on the island, and the temperature is comparatively low during cloudy days. In the cabins on board the thermometer registered from 78-80° Fahr.

Our first expedition to the crater-lakes, one of the most interesting natural phenomena we met with in these Eastern seas, was unsuccessful owing to bad weather, but the next day being fine, we started early in the steam launch to visit them again. They are situated on the south side of the island, about four miles distant from the south-west point off which we had anchored, and running along shore inside the coral-reef, it was not long before we found ourselves at the entrance. It was barely a couple of hundred yards across, and as we glided slowly in, the pale milky-blue of the water on the reef suddenly gave place to the deepest sapphire. We had altered our depth from three feet to between fifty and sixty fathoms, and it hardly needed a glance at the high surrounding walls and circular shape of the basin to tell us that we were in the crater of an extinct volcano into which the sea had at some later period irrupted. A little island at the entrance marks its original boundary on the side towards the sea, and from this and the almost unbroken regularity of the basin's circle it is evident that, if the land were at the same level then as now, the sea had to encroach but little to burst into the deep hollow which it fills at the present time.

The little lake and its surroundings were fairy-like in their beauty, but so peculiar in character, and so rich in the tropical luxuriance of foliage as to give an almost theatrical effect. Around us the dense jungle overhung the water, completely precluding any attempt to land, and clothed the steep walls of the crater to a height of two hundred feet or more. Giant creepers had sprung from tree to tree, and, choking the struggling vegetable life beneath them with an impenetrable mass of foliage, hung in long trailers towards the margin of the water below,—a wealth of green of every imaginable shade. It has been said over and over again by travellers that the great masses of colour so often seen in the landscapes of the temperate zone are in the tropics rare in the extreme. In the dense forests of the latter the glorious orchids and other flowers which are the pride of our hothouses at home are not in reality uncommon. But they are for the most part hidden by the thick


CAGAYAN SULU
With additions & corrections by Lieut. R.ff. Powell R.N., & F.H.H. Guillemard M.D.
Tanjong Bang-a
Nangi
Mt. Ledan
Tanjong Tavo-Tavo
Tebaluan
CAGAYAN SULU
S.W. Anchorage
Spring Obt. Spot
L. Sapie
L. Tiwata
L. Singuan
L. Ennetine
Tanjong Tando-tao
SCALE OF MILES
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vegetation, or perched far out of sight in the forks of some gigantic tree overhead. The explorer who penetrates the true primeval forest in a country such as Borneo finds himself at the bottom of a subarboreal world, if I may be allowed the expression, with whose surface all communication is absolutely cut off. Yet it is just there that all life, whether animal or vegetable, centres. The tiny lorikeets are feeding on the figs or other fruit, and the *Arachnotheras* searching the corollas of some heavily-blossomed tree for their insect prey. But they are almost out of sight, and far beyond the range of the gun of the naturalist. Beneath, the forest seems gloomy, dank, and devoid of life. Everything is fighting for the sun and air, in which alone most flowers will come to perfection, and could we only transform ourselves into monkeys, and swing from branch to branch a couple of hundred feet from the ground, we should doubtless get a much more favourable idea of the richness of the flora of the tropics than our limited powers of locomotion permit us to obtain at the foot of the trees. The fact remains, however, that but few flowers present themselves to the eye, and those who expect to find the blaze of colour that a field of buttercups exhibits in England, or an anemone-clothed hill in Greece, will, as Mr. Wallace and other naturalists have already told us, be much disappointed. But every one who sees tropical vegetation for the first time must be struck by the great variety of tint in the foliage. At home our trees have but little range in the gamut of green. Here they run from a falsetto of vivid greenish-yellow to an *ut de poitrine* of a colour that is only just not black.

We steamed across to the eastern side of the crater, and made the launch fast to a huge fallen tree which jutted far out over the water. It was half buried in the rich soil at one end, and was covered with a wealth of ferns and epiphytes. Above us a large creeper with inconspicuous whitish flowers had attracted an enormous quantity of yellow butterflies, which were apparently limited to that one spot. They were far beyond our reach, and, from a collector's point of view, might just as well have been in the other hemisphere. We had brought with us a trained fishing cormorant we had got some months before in Japan. Life on board ship was evidently a burden to him, and it was resolved to release him here, so while we enjoyed our tiffin he was put overboard to seek his own. Immediately above us a gap in the cliff revealed the probable position of the second lake, and scrambling up by an ascent so steep that, but for the jungle, it would have been impracticable, we found ourselves on a knife edge of rock dividing the two craters. The scene was a very curious one, and we could realise at once the delight of Admiral Keppel on his discovery of such an extraordinary natural curiosity. The second lake, though of somewhat smaller size, is more perfectly circular than the western one, and though its southern wall is

only a few yards distant from the beach, the sea has, as yet, left it unbroken. The level of the water, which is perfectly fresh, must be fully forty feet above the sea, and but for the lessened height of the sur-

LAKES SINGUAN AND JIWATA FROM THE EAST.

rounding walls the second lake is almost an exact reproduction of the first. Our only disappointment was that owing to the denseness of the vegetation we could obtain no photograph giving any idea of the extraordinary scene that lay before us.

We scrambled down again in considerably less time than we had taken over the ascent, and rowed round to the sea side with the intention of hauling our "Berthon" boat through the jungle and launching it on the second lake. But after a hard struggle we had to relinquish the idea; the heat and dense tangle of creepers proving too much for us. The view from the southern side was even more striking than that we had first obtained, though limited by the masses of foliage which, combined with the steepness of the cliffs, prevented our descent to the water's edge. Opposite to where we stood the almost perpendicular crater wall was hidden by enormous creepers, but to our left the deep gap by which we had ascended from the western lake stood out bare and rocky, the cliffs rising a hundred feet or more above the little pass. The water below us lacked the deep sapphire blue of the other basin. We watched its unruffled surface in vain for any trace of the crocodiles which are said by the natives to haunt it in abundance.

Our search for shells and beetles was rather unproductive. Of the former only some common species and a single valve of a huge *Tridacna* were found. I had never met with this except on the floor of a museum, and the first sight of the monstrous shell on a lonely sea-beach is one not easily forgotten. We were more fortunate with the birds, and though a good many were lost in the jungle, we shot a large fruit-eating pigeon which I had hoped might prove to be a new species (*Carpophaga pickeringi*, Cass.) It had, however, I afterwards found, been once before obtained upon a small island off the Bornean coast by the United States Exploring Expedition. On the shore of the outer lake, close to the sea, we found some curious masses of coarse conglomerate, and several blocks of scoriaceous rock of large size.

The land in the neighbourhood of the crater-lakes seemed to be but little inhabited, and the only hut we saw was a miserable tumble-down affair, open on two sides. Near our anchorage, however, the groves of fruit-trees and coconuts hid a good number of scattered dwellings which, like almost every hut throughout Malaysia from the Nicobars to New Guinea, were built upon piles. The house of the Pangerang would have been pleasant enough even for a European to live in, for in a climate where it is "always afternoon" domestic wants are few. On our return visit to him he welcomed us with evident pleasure, and we sat down to tobacco and a long *bichara*.[1] Although not dressed in any way to distinguish him from the other natives, with the exception of his turban, he was intellectually of a

[1] The meaning of this word the traveller in the Malay Islands is not long in learning. It corresponds to the African palaver, and, whether for business or pleasure, is met with under different names in most countries in the world. Its great art lies in saying as little as possible in the most protracted time. The information usually obtained in a *bichara* of ordinary length would "boil down," to use the language of the Fourth Estate, into half a dozen lines of letterpress.

very different stamp. In his pilgrimage to Mecca,—for he was a Hâji,—he had seen men and things, and evidently felt his superiority to the rest of the islanders. He offered us guides for our excursions, and talked long about the Spaniards, whose reputation for cruelty still seems to linger here, adding that he wished the English would take the island instead. Two or three of his wives sat with us in the hut and spoke occasionally, for though the people of Cagayan Sulu are Mohammedans, as is the case throughout the islands of the Indian Archipelago wherever semi-civilisation and the Malay element prevail, the position of woman is very different to that which she occupies in Turkey. Here, unveiled, and free to go about wherever she pleases, she is a distinct personage in the household.

We noticed at one end of the room an ingenious contrivance to produce the same effect as a rocking-cradle does upon a European baby. The little basket-woven cot was suspended in the middle of a long bamboo, which rested horizontally two or three feet from the floor, supported at two ends only. A slight downward pull produced a vertical motion, which, owing to the great elasticity of the bamboo pole, lasted for a considerable time. We afterwards saw a similar method adopted in the Sulu Archipelago.

On the 31st of March we paid a third visit to the craters in company with the Pangerang. We had heard rumours of the existence of a third lake resembling the other two, and were anxious to investigate the truth of them. But as it was said to be in close promixity to the others we hardly thought that it could be anything of importance. Not only had Admiral Keppel visited the lakes on two occasions, but Captain Chimmo, during the visit of H.M.S. *Nassau* in 1871, had completed an apparently accurate survey of the island, so there was but little chance of any further discoveries. Skirting the mangrove and pandanus-lined shores, we reached the lakes in heavy rain, and forced our way through the dripping jungle to the eastward, when, to our astonishment, at a distance of a few yards only from the second lake, we came upon yet another of an almost exactly similar nature. It was of rather smaller size than the others, being two-fifths instead of three-fifths of a mile in diameter, but the basin was perfectly circular, and filled with water to about the level of the second lake. Thick jungle clothed the precipitous sides, but the latter, instead of running sheer down into the water, left room for a small beach, on which some wild bananas were growing. We had no means of trying the depth of the water, but in the other two Admiral Keppel found the bottom at fifty-five and thirty-nine fathoms respectively. The torrents of rain that descended prevented our attempting photography, but we returned to the ship much pleased at our unexpected discovery.

From our friend the Pangerang and other sources we obtained some

general information on the island. Colonised originally from Sulu, though at what date appears uncertain, there is still a certain amount of communication with that group of islands as well as with Sandakan at the north-east end of Borneo. The language is purely Sulu, but many of the people speak Malay, the *lingua franca* of the Indian Archipelago. Some years ago they suffered much from the raids of Sulu pirates, the last of which occurred in 1863, but these pests,

PANDANUS.

who established their stronghold among the labyrinth of shoals on the south of Tawi-tawi Island, have of late been held in check by the Spanish, and before long will, no doubt, have entirely disappeared. The only trade is in coconut oil, but the yam, banana, sweet-potato, cotton-tree, and tobacco are cultivated. Liberian coffee, cacao, and sugar ought all to do well, and the soil appears to be particularly adapted for growing the two former, but we saw none upon the island. The greater part of the agricultural work is done by the women, while the men employ themselves in fishing, managing their crank dug-out canoes with great dexterity. They also make use of rafts made of large bamboos lashed together—a species of craft that I do not remember to have seen anywhere else in this part of the world.

There are apparently no horses, in spite of their being so abundant in Sulu, but cattle of a small breed are much used for riding purposes. They are never milked, but the Pangerang informed us that this was merely because no one knew how to perform the operation. The island is said to be very healthy, but in 1873 smallpox appeared, and almost exterminated the people. During this terrible scourge, in many villages of thirty or forty souls but one or two were left alive, and as many as 1000 are said to have perished. At the present time the population is probably under 3000.

Rare as the visit of a ship of any kind must be, our appearance seemed to excite but little curiosity among the natives, and we wandered about the island almost unnoticed. Our men were allowed a run ashore, and were full of yarns on their return. One, a new hand in the tropics, to whom the *lex non scripta* which declares coconuts to be invariably private property was unknown, ascended a palm and proceeded to possess himself of the spoil. The result we afterwards overheard in a fo'c'sle conversation, "Well, mates, ye see I was just a reachin' out of my hand for to grab 'em, when, Lord save me, if there wer'n't a fox came and poked his nose out just agen mine! I reckon I fetched down again pretty quick. Blessed if ever I see such a rummy country afore, where the foxes runs up trees!" The dragon guarding Jack's golden apples was, I need hardly say, a *Pteropus* or Flying Fox,—one of the large frugivorous bats so abundant throughout the Malay Islands.

One of our excursions was to the summit of a small volcano on the west side of the island. Our path led through the coconut plantation, where, if we chose to stand and watch steadily the crowns of the palms some forty feet or more above our heads, the restless movements of numbers of brilliant little sun-birds could be noticed, their dark forms changing momentarily into a flash of metallic violet as they passed from beneath the shadow of the fronds. They were all of one species, *Anthothreptes malaccensis*, a common bird which, with slight variations in plumage, is found throughout the greater part of Malaysia. The hill—for being only 400 feet in height, the volcano cannot be dignified by any more imposing title—rises gently in the form of an abruptly-truncated cone, and bears evidence of tolerably recent formation, for its slopes were covered by the bright green lalang grass only, and the jungle had not as yet succeeded in obtaining a footing. In countries farther removed from the equator the traces of volcanic eruptions may remain almost unaltered for centuries, but in these lands of perpetual summer the combined action of a powerful sun and heavy rain rapidly disintegrates the lavas, and prepares a surface soil for the reception of seeds. Ere long the sea of tropical vegetation has closed over the spot, and the smaller size of the jungle trees alone reveals it to the traveller's eye. Some months later, while in the island of Sumbawa, we came

across a well-marked instance of this kind on the slopes of the huge Tambora volcano, whose terrific eruption in April, 1815, caused the death of 12,000 people. The wavy course of a lava-stream, though doubtless unrecognisable on the spot itself, could be traced with the greatest ease from the ship. Nature's wound had no doubt skinned over rapidly enough, but the scar still remained.

Arriving at the summit we found an evenly-shaped crater nearly 100 feet in depth, its sides clothed with trees of no great size. To the south, and quite close to us, lay two other hills, also evidently volcanic. Our elevation, though little enough, was sufficient to afford us a good view of the island, which in every direction appeared to be comparatively free from jungle, though scattered belts of palms and fruit-trees were abundant. Ledan, a curiously-shaped mountain, rising like a bold hump of rock abruptly from the level country around it, was a very striking object to the east, and farther to the right a sharper peak, hollowed on its southern face, indicated the position of the three crater-lakes. On our return we gathered large bunches of a Jessamine almost exactly resembling our own, but with slightly larger and more fragrant flowers. The *Mussænda*, with its striking white bracts contrasting with the green foliage and orange flowers, was also very abundant.

In the course of one of our conversations with the Pangerang he had mentioned the fact that during the months of April, May, and June there are often strong winds from the S.W., and on our inquiring for the best anchorage at this season, he told us that there was an excellent harbour on the north coast. We were provided with Captain Chimmo's chart, but beyond a mere unprotected anchorage on this side of the island, nothing of the sort was indicated in it, and we told our friend that we thought he was probably mistaken. He stuck to his point, however, and accordingly one afternoon we set off in the steam launch with him to explore. The western point of the island is apparently formed by an abrupt headland known to the natives as Tanjong Tavo-tavo, but in reality an intervening creek forms it into an islet. Entering this channel we found that it expanded into a small lagoon with a little island in the centre—if indeed a clump of trees growing straight from the water can be termed an island. It was crowded with Whimbrels (*Numenius uropygialis*, Gould.), who were balancing themselves uneasily upon the branches,—a common habit in this part of the world. Nothing is more curious than the adoption by certain birds of habits which, from anatomical reasons, we know must be extremely inconvenient to them. Without power of grasping in its foot, and with its great length of leg, few birds would seem less adapted for an arboreal life than the whimbrel. But in these regions, as in others, necessity has no laws. The dense growth of mangrove has here overrun the sandy beaches and oozy flats which are the favourite

haunts of this genus in temperate countries, and hence, in company with our Common Sandpiper and the equally wide-ranging Turnstone, both of which were also abundant in this locality, no other choice of a resting-place is offered them.[1]

Beyond the lagoon the channel became so narrow as hardly to admit of the passage of the launch, and finally opened out on the north side of the island into what would have been, but for the presence of a coral-reef completely across the entrance, a most admirable harbour. We were quite prepared to have this pointed out to us as the object of our search, but the Pangerang made no sign, and turning eastwards, we pursued our course for about half a mile, until we suddenly came upon it. It was as good a harbour as could be desired during the south-west monsoon, well protected to the east and west by reefs, and having an average depth of fifteen fathoms, with a sandy bottom. That it had previously escaped observation was no doubt due to the fact of its being formed principally by the coral-reefs.

Our discovery, although perhaps not so interesting as that of the third crater-lake, was a useful one, and we devoted the remainder of that and the whole of the following day to making a sketch survey. The shore of Yacht Bay, as we named it, was sandy—somewhat of a rarity on the coral and mangrove-girt coasts of the island—and formed an ideal place for a picnic. Behind us the tall jungle threw a pleasant shade over the little beach, whose margin was lapped by a waveless sea, its only sign of life the almost inaudible swish with which it advanced or retired over the cool white sand. We ate our tiffin beneath a large *Barringtonia*, whose branches, thickly clothed with broad fleshy leaves, stretched far out over the water. The tree was in fruit and flower, and its bright-stamened, tassel-like blossoms and large quadrangular nuts carpeted the ground below. The latter is a "common object of the seashore" in the Malay Islands, and is much used by natives to catch fish. The fruit is pounded and thrown into the water, and the fish, rising to the surface in a stupefied condition, are easily secured.

We were too much occupied to spend our time in searching for objects of natural history, but the forest by the beach seemed silent and deserted. Animal life indeed, so far as we could judge from our short visit, appeared singularly meagre in Cagayan Sulu, a fact that is perhaps accounted for by the island being, geologically speaking, of comparatively recent formation. Crocodiles and *Hydrosauri* of course exist, and, according to the natives, the rat and the Kraw (*Macacus cynomolgus*), a common Bornean monkey. We did not, however, obtain either of the two latter. With regard to the birds, the few species we collected or identified were interesting, as showing the island to have

[1] The Whimbrel has been said ("Ibis," 1879, p. 142) to build its nest in trees in some parts of Celebes. The statement, however, is one which requires confirmation.

been peopled with immigrants both from the Philippines and Borneo, though, as might be expected from its proximity, chiefly from the latter country.[1] We were fortunate enough, in spite of the comparative paucity of birds, to find one new species—a pretty thrush-breasted *Mixornis*—closely allied to a Bornean bird of that genus; and on the whole, taking into consideration our two other discoveries, we felt that our visit to this little-known "gem of the ocean" had not been entirely unsuccessful.

[1] Cf. Paper by the author on Cagayan Sulu: "Proceedings Zoolog. Soc.," 1885, p. 417.

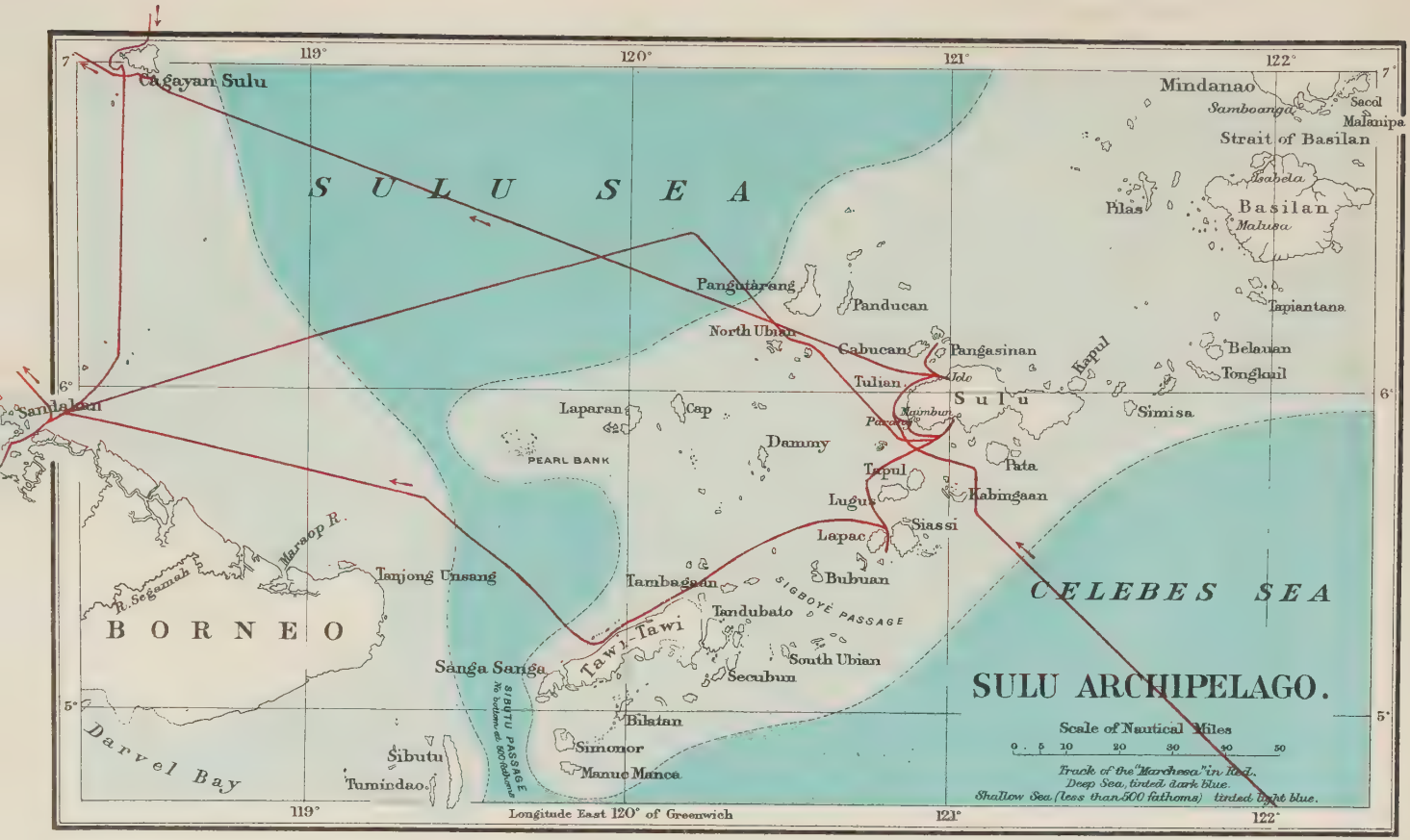
CHAPTER XII.

THE SULU ISLANDS.

We bade adieu to our friend Hâji Usman, the Pangerang, and left Cagayan Sulu on the 3rd of April. Our destination was Sandakan Bay, about fifty or sixty miles due south, where there is a settlement of the North Borneo Company. Here and in the neighbourhood we spent about a fortnight, but as we afterwards returned for a more lengthened visit, I will leave my account of the new territory and the doings of the somewhat anomalous form of government which administers it for the present, and proceed to the more attractive islands of the Sulu Archipelago.

Our ship's company had increased in numbers since our northern cruise. Before leaving Hongkong we had been fortunate enough to obtain the services of Mr. Griffith, the well-known photographer in that city, and it is chiefly from the beautiful negatives obtained by him on our cruise in these waters that my illustrations of tropical types and scenery are engraved. At Sandakan we made friends with a little so-called Rajah, to whom, with his suite of three Sulu attendants, we gave a passage to Meimbun in Sulu Island. He was a lively little youngster of about fourteen, who had been a great favourite of the last Sultan of Sulu, and had apparently acquired a good many of his sovereign's despotic habits, for the way in which he ordered about his followers was most amusing. He smoked native *rokos* or cigarettes incessantly when he could not get ours, and his chief amusement seemed to be the rapt contemplation of the two or three tinsel and gold embroidered *bajus* that constituted his wardrobe. Our own native servants were two in number; Ismail, a Singapore Malay, and a Sulu boy named Usman, both of whom we had taught to collect and skin birds.

We left the shores of Borneo behind us on the afternoon of April 19th, and set our course eastward for Sulu. The northern part of this extensive archipelago is but little known, and the currents are strong and uncertain, and hence it is necessary to be careful not to approach the



Stanford's, Geog.l Estab.t London.

know of, I think I should ask him to take a seat with me in a native canoe, and paddle up the graceful windings of the Meimbun River. At its mouth the huts, built on sea-weed-covered piles, form each a separate island. Their floors are raised a bare three feet above the level of the water, and one needs no better evidence of the fact that here, at least, we are in stormless seas. On the palm-stem platforms in front of the entrance the natives squat, while around are playing half a dozen naked little cupids, now plunging into the water, now paddling races in miniature canoes. A little farther and we enter the river, whose water is so clear and pure and bright that one longs to tumble in, clothes and all, and squatter about in it with the brown-skinned little urchins around us. Close to the banks lies the market-place, a picturesque jumble of ponies, ripe bananas, red *sarongs*, palm-leaf stalls, and flashing spears. Beyond, the sea-going praus are hauled up on shore, their unwieldly sterns a mass of quaint carving. Then through a tiny reach bordered by the Nipa palm, whose graceful fronds, thirty or forty feet in length, spring directly from the stream, and we find ourselves in a sort of upper town, where the houses are built with seeming indifference either in or out of the water. The place is the absolute perfection of beauty and untidiness. Overhead the eye rests on a wealth of verdure—bamboo, banana, durian, jack-fruit, and the arrowy betel-palm with its golden egg-like nuts. In these happy climes man's needs grow at his very door. Cold and hunger, misery and want, are words without a meaning. Civilisation is far off indeed, and, for the moment at least, we have no desire for it.

Before us lie the houses. They are rickety enough certainly, and their walls of yellow *attap* gape sufficiently to show us a slumbering Sulu within, his murderous-looking kris at his hip. But there are no north-easters here, and he is doubtless quite happy. That man should live by the sweat of his brow is true here in its most literal sense. But it is not so metaphorically, and our sleeping friend will not even have to get up and feed the pigs and chickens that are routing around the piles of his hut. Bountiful Nature supplies food for them also, and, in domestic language, they have to "find themselves."

A little bridge spans the river at this point. It is constructed of a single plank of the Nibong palm, with a light bamboo handrail, and is in keeping with the quaint novelty of the scene around. Were I to land my reader here, with the not unnecessary precaution of informing the natives that he is an *orang Ingris*, and not an *orang Castillan*, he might wander unharmed about the village. But the river beyond is too tempting to leave unexplored. Once past the huts the vegetation closes in on either side, forming a picture-frame of tropical foliage around the cone-shaped summit of Buat Timantangis. A brilliant flash of blue shoots arrow-like across the stream. It is a kingfisher, whose

MEIMBUN, SULU ISLAND.

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close resemblance to our own well-known species is the only link in our surroundings connecting us with home. The little white cockatoos, diminutive brethren of the familiar Australian bird, fly in small parties over our heads, and here and there a golden oriole sits like some brilliant yellow blossom amid the mass of foliage. Ere my reader disembarks with me at the Istana, and walks up to pay a visit to the Sultan, he will —or ought to—allow that as far as regards beauty of scenery, there are few places more favoured than the island of Sulu.

On the occasion of our first landing we did not go far. Leaving the river we struck off to the right into an open country, where a number of young teak-trees were growing. The ground was covered with small lumps of lava and scoriæ, the relics of some former eruption, and but for the thick growth of grass above it, walking would have been far from pleasant. The views of the country inland were lovely, but the ardour of our chase after the many new objects of natural history around us was a litttle damped by our Sulu boy, Usman, who, after wandering about in a state of perturbation from one to the other of us, finally begged that we would keep together and not go far from him. The Sulus, we learnt, were apt to be unnecessarily hasty in their actions, and might not perhaps allow us sufficient time for explanations were they to meet us. We had every desire to keep our heads upon our shoulders, and it was therefore thought better to pay our respects to the Sultan, and make ourselves generally known in our ordinary unmangled condition. In Sulu every prospect pleases with the single exception of being mistaken for a Spaniard.

It was not long before we found ourselves at the Istana,—the Sultan's residence,—an uninteresting building enough from the outside. It is placed close to the river, and opposite, across a short stretch of turf, is a long, low building with latticed windows devoted to the ladies of his harem. The door of the Istana was guarded by two Sikhs, bushy-whiskered and moustached. In the Malay Archipelago one gets accustomed to rubbing against men of almost every race and language under the sun, always excepting Europeans, who are rarities. Chinese, Goa Portuguese—the curious nondescripts that are classed under the name of burghers in Ceylon, the *orang sirani* or Nazarenes of the Malays—Sikhs, Bombay *tambis*, nay, even Swahilis, all these I have met with. One would not be astonished at the appearance of a Hottentot or a North American Indian, but if the Sultan had any in his suite he did not show them. Two curiosities, however, there were at the palace doors which seemed more incongruous still,—a couple of carriages which had been presented to the late sultan. Roads there are none, and His Majesty's broughams were rotting slowly away under the action of the weather, just as the Sulu power is rotting before that of Spain.

We were told that the Sultan would see us, and entered to find

ourselves in a large room. It was floored in the rudest manner, but the walls and ceiling were hung with coloured cloth. In the centre was a large Turkish lamp, such as one sees in the bazaars at Constantinople, but it was almost the only ornamental article visible. An old "four-poster" bedstead occupied one corner, evidently a production of the country, and with a footboard rather well carved; but the greater part of the room was taken up by a gigantic divan about fourteen feet square, covered with carpet, and with seats round the three sides.

We waited a good half hour in company with about thirty natives, who probably belonged in some way to the Sultan's retinue. They were armed, as indeed is almost every Sulu, with spear and *parang*, and looked as if they might be unpleasant enough if called upon to use them. One or two who spoke Malay came forward and chatted, and we were amused by the intense astonishment that they expressed at our walking-stick guns, which we had brought instead of our usual 12-bores for fear of creating an alarm. Presently a stir was heard and the Sultan entered. He was dressed in a purple velvet jacket trimmed with gold lace, a gold-embroidered flat Malay fez with a turban round it, a coloured silk *sarong*, and European trousers. His age appeared to be not more than nineteen or twenty, and his expression, though somewhat nervous, was not unpleasing. Behind him came an unprepossessing individual with a revolver in his hand, loaded and cocked, the muzzle of which he happily kept directed towards the ceiling, and a numerous retinue of hangers-on, among whom was an attendant bearing a silver betel-box, and a small case which contained Chinese tobacco and the thin Nipa leaves which, in these countries, are the substitutes for cigarette papers.

The Sultan's title is Paduka Baginda yang di per Tuan Maulana Sultan Mohammed Budderooddin, but he advanced and shook hands. Doubtless he is a Lord of Elephants, Emperor of Pearls, and the like, but the above is the correct designation of His Royal Highness, according to his visiting-card,—a packet of these not very necessary articles having been sent to him by the Spaniards as a present. He was a little suspicious of us at first, but gradually became more at ease. We asked him to pay a visit to the yacht, but he said that he was afraid he could not do so unless she were brought alongside the small *jambatan* or pier at the mouth of the river. With our large draught of water this was impossible, and we told him so. We afterwards found that he was mistrustful of us, fearing that we were in league with the Spaniards, and that our design was to carry him off to Manila. It was ultimately settled that two Turks who formed his bodyguard should return with us to the ship to inspect,—he having, apparently, much confidence in them. In the meantime refreshments had been brought for us in the shape of European biscuits and some really excellent chocolate—the latter the produce of the island.

Nipa-leaf cigarettes were also handed, which, in spite of their being most beautifully rolled, would hardly commend themselves to the gilded youth of St. James's Street. There is such a marked bonfire flavour about the palm-leaves that it completely masks that of the tobacco, and the presence of the latter appears entirely unnecessary.

Regaining our boat we found that our men had got on very well with the natives. Fruit and fowls had been brought for sale and barter. The price of the latter was one dollar for eight, but at a later period of our visit we got them cheaper. The young Sultan has hit upon a

MOHAMMED BUDDEROODDIN, SULTAN OF SULU.

most simple plan of increasing his revenue. The currency consists of dollars, cents, and "cash" of the Straits Settlements, or Hongkong. He buys 120 cents, or its equivalent in "cash," with his dollar in these countries, and has fixed the rate of exchange at 80 cents in his own dominions, thus making a clear gain of 40 per cent. We noticed a few days later that a guard was placed over a small trading vessel from the North Borneo Company's territory to prevent any smuggling of cents.

The authority of the Sultan of Sulu is practically limited by the four walls of his harem. Indeed, as we discovered at a later period, it does not seem absolutely undisputed even there. Formerly he ruled over all the islands of the archipelago excepting Basilan, together with

Cagayan Sulu and a large extent of country at the north of Borneo, in the neighbourhood of Sandakan and Darvel Bay. Of this latter portion the North Borneo Company have become the possessors, in consideration of an annual payment to the Sultan and his heirs *in perpetuo* of five thousand dollars. His influence over the chiefs in the other islands is of the slightest. In Sulu itself even it is doubtful, for the people are split up into innumerable factions. The island is only thirty-three miles long by twelve in its extreme breadth,—smaller than the Isle of Wight in fact,—yet it appears always to be, and to have been, in the condition of Europe in feudal times, when every man's hand was against his neighbour. The eastern peninsula is governed—if indeed such a term can in any sense be used in connection with the Sulus—by the Maharajah of Loč, while at the extreme west lives the Panglima Dammang, a bloodthirsty old ruffian, who is constantly fighting with Maharajah Tahil. The latter warrior has his headquarters at the foot of Buat Timantangis, barely a couple of miles from his enemy. All are more or less at war with one another, but all join in a common hatred of the *Castillan.* The lovely island, with its glorious wealth of fruit and flower, with a soil as fertile as any in the world, with its shores lapped by a stormless sea, ought, one would imagine, to drive all thoughts of murder from man's breast. But the land streams with Sulu blood, shed for the most part by Sulu hands, and poison appears to be used with as much indifference as the *parang.* The people are, apparently, hopelessly turbulent and regardless of life, yet in our five weeks' intercourse with them, walking or riding alone in almost all parts of the island, we met with the greatest civility everywhere, except in one instance to which I shall presently refer.

The inspection of the *Marchesa* by the two Turks must have been satisfactory, for on paying another visit to the Sultan on the following day we learnt from him that he would come on board in state that afternoon. We accordingly returned to make arrangements, as it had been delicately hinted that His Royal Highness would expect a salute of twenty-one guns, and we were rather uncertain as to the efficiency of our armament. At 3 P.M. our boats were seen making for the ship, literally crammed with people, whose brilliantly-coloured *sarongs* and jackets gave our lifeboat, gig, and cutter the appearance of three Crystal Palace flower-beds. Before long our decks were crowded. The Sultan was in a different dress from that in which we had first seen him. He wore a flat fez of black silk heavily embroidered with gold lace, a short cloth coat also much embroidered, and a white silk *sarong.* His dress was decidedly effective and in good taste, and although we knew him to be a man of the weakest character, with no thoughts beyond his harem and his opium pipe, he comported himself with a quiet dignity and perfect good-breeding which made us all like him. It is no doubt

a common enough characteristic among those of Malay race, but for all that it is none the less pleasing, especially when accompanied, as it was in his case, by a smiling unreserve which is not so often met with, and an evident sense of pleasure at the novel objects by which he found himself surrounded.

The crowd of Sulu warriors that thronged our decks were all armed, but the Sultan carried no weapons of any kind. He was, however, closely followed by an attendant who bore his *parang*—a beautiful weapon of razor-like sharpness, gold hilted, and with its ivory handle inlaid with eight pearls. There were other personal attendants whose Sulu titles I am not acquainted with. Anglicised they would be the "Betel Box in Waiting," and the "Bearer in Ordinary of the Tobacco Case." The "Gentlemen Usher of the Revolver" was happily absent, for the way in which his forefinger had trifled with the trigger on the previous day had filled us with alarm. But the most important of all these people were two men who bore the spears of the Sultan and Sultana. These weapons, like the *parangs*, are of Sulu manufacture, and even those carried by the common people are wonderfully well made. The Sultan's were, of course, of still better quality. Of wavy steel, rough and without any trace of polish, as are all the best blades of Malay make, they were very sharp, and were fitted with a hilt of embossed silver about a foot in length. The Sultana's spear was of curious shape; double-bladed, with the two blades meeting at the hilt. The shafts of these weapons appear to be usually made of the wood of the Areca palm, the toughness and density of which renders it a favourite material for this purpose throughout Malaysia and the Pacific Islands.

THE SULTANA'S SPEAR.

There were perhaps forty or fifty other Sulus on board, besides the two Turks and a Sikh of gigantic stature. The former were mostly of inferior rank, but almost all were dressed in embroidered jackets of different colours, with Chinese gold buttons. They wore turbans of silk or cotton, worked with gold thread. All these are made on the island, and are good, but too gaudy, one of the favourite colours being a bright green. A tight-fitting cotton garment, much like a pair of riding breeches, seemed to usurp the place of the *sarong* in a great number of cases, reaching to the ankle, and leaving the feet bare. The inevitable *parang* is stuck in a twisted cotton belt.

Our guest was much pleased with the mechanism of a Nordenfelt gun we carried, and his astonishment when we showed him its rapid action with ball practice was considerable. He inquired the price, and asked if we could get him one, adding that it would be a capital thing in the case of any further row with the Spaniards! He wandered over the ship, exhibiting considerable interest in what he saw, but his chief source of pleasure seemed to be the piano, to the music of which he insisted on dancing. I must clear the imperial character by adding that he had partaken of nothing stronger than lemonade.

We sped the parting guest with a salute of twenty-one guns, and were not sorry to get our decks clear of his numerous adherents. As a matter of fact, four hours of a sultan is quite sufficient. We had on many subsequent occasions to entertain these small potentates,—"Rajah days" they used to be called by the sailors—and very fatiguing and monotonous work we found it. Not only were our meals disorganised and the routine of the ship interfered with, but the decks were generally found liberally bespattered with the ineradicable stains of betel juice, greatly to the disgust both of officers and men. It speaks well for the character of our guests that we never had any article stolen.

During our stay at Meimbun, and again on subsequent visits, the time passed pleasantly enough. Subjects for the camera were abundant, and collecting and preserving birds and other specimens took up a large portion of the day. Every morning, shortly after sunrise, we disembarked from our boat at a little bridge by the upper village, and were welcomed by a small crowd of stark-naked little Sulus of both sexes, who fought for the honour of carrying our game-bags and cartridge-belts. None spoke Malay, and so our conversation had to be carried on by signs, but it never flagged, at least on their part, and we had some difficulty in keeping it within bounds when, as often happened, a party of ten or a dozen accompanied each gun. The young ladies showed as much keenness in the sport as their companions. The Roman fair ones, *pollice verso*, were, we know, always willing for the death of the combatant; and a bright-eyed little maiden who, clad in the simple garb of a cartridge-bag, used generally to accompany me in my rambles, was invariably much disgusted when I refused to shoot some bird of which I already had a sufficient number of specimens. If the truth were known I daresay some of these merry little urchins had seen bigger game bite the dust. I recollect seeing one whose only garment was one of the razor-edged *parangs*, attached to his waist by a belt of twisted cotton.

One of our favourite excursions was towards the foot of Buat Tulipan, to the west of Meimbun. It is a cone of rather over 2000 feet, and is cultivated in patches almost to the summit, for it has long

been extinct, and neither it nor its fellows trouble the island even with an earthquake. Such diversity of scenery as Sulu affords is seldom seen in a tropical island. The old jungle has been for the most part cleared away, but long, dark patches of it still exist in the small gullies, or cover the sides of the mountains. Nearly everywhere the eye is greeted by what an auctioneer would describe as "an extensive and park-like view." If we stand on one of the many hills which tend to make the island look far larger than it really is, we see before us a stretch of hill and dale covered with bright green grass, and dotted with little spinneys or solitary, well-grown trees,—just such a view, indeed, as one might get from a country-house in England, were it not for the suspiciously sharp cone of some volcano cropping up on the horizon. Here and there, where the soil has been freshly turned by the rude wooden ploughs employed by the natives, it seems as if some huge ruddy-coloured blanket had been spread out in the sun to dry. Few huts are to be seen. Most of them are buried in little groves of cocos, or amid the dark foliage of the durian or *Artocarpus*, and the "warm blue breathings of the hidden hearth" alone reveal their presence. In these open glades there is but little bird-life, but in the other localities we had for many days no difficulty in procuring specimens. Perhaps the commonest, or at least the most conspicuous bird is the Scarlet-vented Cockatoo (*Cacatua hæmaturopygia*), which possesses a single rose-coloured feather for its crest. This species is occasionally tamed by the Sulus, and apparently can be taught to talk, although not readily. We ourselves did not succeed with our pets, but in one instance I found a much dissipated-looking specimen in a native hut, who seemed to have half forgotten some language which, we were assured, was Sulu.

Overhead, in the open clearings, the Wood-swallow (*Artamus leucorhynchus*) hawks unceasingly. Square-tailed and with short, stumpy-looking wings, it has a somewhat clumsy appearance, but its beautiful silver-grey back and snowy under-surface atone for it. Its habits are curiously swallow-like, whether sitting huddled up in company with half a dozen others on a bare bough, or whirling round in wide circles with an incessant twittering cry; but in reality it is a species of Shrike, and has as little affinity with the Hirundinidæ as our so-called sea-swallow, the tern. The curious *Sarcops*—a bird the size of a thrush, with black and silver plumage, and a large fleshy wattle of a bright pink colour round the eye—is also an abundant species, haunting the large fruit-trees in the neighbourhood of the native huts; and though not so conspicuous as the blue and green parrots, or the brilliantly-coloured Lorikeet (*Loriculus bonapartei*)—a little glowing ball of vivid crimson, yellow, and green—its peculiar appearance is even more striking to a naturalist's eye. But of all the ornithological spoil we obtained from the archipelago, the tiny little Sun-bird (*Cinnyris juliæ*) was perhaps the

most brilliant and the most beautiful. The head and tail are metallic green, the back a deep red, and on the under-surface the brilliant magenta of the throat gives place to a rich orange on the breast and abdomen. These lovely little creatures were not common, but a particular clump of low, flowering shrubs close to the village of Meimbun was a favourite spot for them. They were fearless enough of our presence, and as they flitted from flower to flower with a short, jerky flight, or hung head downwards, rifling the blossoms of their insects or nectar, their throats shone like living rubies in the blaze of sunshine. The habits of this genus are very much alike, and as I used to watch them my thoughts often went back to a well-remembered spot on the Flats of the Cape Town peninsula, whither some years ago I used

Sarcops calvus.

to stroll every morning to see the Nectarinias (*C. chalybœus*) feasting on a hugh bush of Erica in full flower. In spite of their beauty of plumage, however, these birds are not the best of characters, constantly quarrelling and fighting, and driving away their weaker brethren, just as is the case among the humming-birds. Their many moral imperfections somewhat quieted my conscience whenever I transferred a fine specimen to the collecting-bag. They were, moreover, great rarities, having previously only been discovered in the island of Mindanao by the naturalists of the *Challenger*.

South of Buat Tulipan was a picturesque little village, where our friend the young Rajah lived. It was built half in, half out of what appeared to be a lake, but was in reality a creek running up from the sea, its entrance hidden by the mangroves. These places always have the strongest fascination for me. It is pleasant to lie at full length on a palm-leaf, taking deep draughts from a coconut and watching the

picture of savage life and its surroundings. Here a Sulu—*parang*-girded, and with his spear stuck handy in the sand—is drying fish in the sun. They have been already smoked, and now, tied in small bundles, are being stacked away on beautifully neat bamboo frames placed one above the other. A couple of old women are dipping water with long bamboos from the well, leaning over the blocks of white coral of which its parapet is built. In these climates man is amphibious up to the age of ten, and a dozen or more little warriors and their wives *in futuro* are splashing and spluttering about in front of the houses, or climbing into the carved praus drawn up on the grey sandy earth which forms the beach. Over the tops of the mangroves the sea is visible to the right, in vivid patches of bright green, white, or blue, according to its depth. Everything is simmering in the heat. Our coconut is finished, and we look longingly at a mass of the yellow fruit above our heads. The little Rajah who has come out to see us motions to a boy close by, and the young monkey, climbling like a cat by the aid of the notches cut in the tree, throws us down another to refresh us before we start once more upon our rambles.

Among the big durian and jack-fruit trees at the back of the village lay the little cemetery. The carved wooden headstones were closely packed together, some flat and in the shape of a conventional leaf; others straight and post-like, carved to represent a series of superimposed cubes. Overhead the *Michelia*—the dead man's flower, as the Sulus call it—dropped its deliciously-scented blossoms, and the graves were strewn with the flowers of the Areca palm. Buddhist and Mohammedan alike plant the Champac above their dead. So should we too, I think, did our climate permit it. Day after day throughout the year the tree blossoms. Day after day the delicately-creamy corollas fall entire upon the grave, retaining both their freshness and their fragrance, unlike any other flower. For how long after they have closed over our loved ones are our graves decorated, I wonder? Here Nature, kindlier-hearted and unforgetful, year after year lays her daily offering of Champac blossoms upon the tomb.

A few days after our arrival the Sultan intimated that he would like to bring his wives on board with him when next he visited us. He was said to have six, but we could not ascertain the exact number, as it is of course contrary to the rules of etiquette to allude to them. The first wife, a Sulu woman much older than the Sultan, was, we soon found out, not the favourite. What little affection he had to give was bestowed upon a rather nice-looking girl with a good figure, who had been taken but a short time before from a Datu or chief at the east end of the island. War had broken out in consequence, and both parties were shortly to take the field. His august Majesty is not supposed to engage in warfare, so he gets some one to do his fighting for him.

There is usually not much difficulty about these matters in Sulu, and in this case a lean and unpleasing-looking warrior who came to visit us on board was about to act as generalissimo of the forces. The *causa belli* apparently led a miserable life among the other members of the harem, who were intensely jealous of her. She had been chosen by the Sultan to be the bearer of his present, which so enraged the second favourite, a Chinese girl, that she slapped His Majesty's face, and altogether declined to be present on the occasion. Some little time

A SULU GRAVE.

later, before our second visit to Meimbun, this favourite wife died suddenly of poison, "administered by some person or persons unknown," but there was very little doubt that the Chinese girl, if not the actual administrator of the drug, was at any rate the instigator of the crime.

It had been arranged that the Sultan's party should arrive at ten o'clock in the morning, and we had fondly hoped to get rid of them before tiffin. But potentates and punctuality have no connection in the far East, and it was not till four hours later that the beauties of the harem appeared. We were then novices at these ceremonies, and had put off our meal from time to time, expecting our guests every moment. We were, I regret to say, both hungry and short-tempered. But later, when we got to be aware that these imperial idiosyncrasies were always

to be depended upon, we took action accordingly, and received our visitors a few hours after their appointed time with the easy smile begotten of the post-prandial cheroot.

In due course of time five large boats discharged their brilliantly-coloured cargo on board, and our decks were soon so crowded that it was almost impossible to move. The Chinese wife had thought better of her resolution, and had condescended to be present after all, but another of them was in a fit of the tantrums, and had refused to come. Whether in or out of the harem the Sultan appeared to be equally in a state of broil, and the fear of poison, the intrusion of the Spaniards, and opium-smoking, no doubt all combined to shorten his life.[1] He was also considerably in debt at Singapore, but with an elastic conscience and plenty of his warriors at hand, he was less likely to suffer from anxiety on this account than his creditors. He would be a bold dun indeed who would venture to go to Sulu in search of his money.

To European eyes the Sultan's wives were not very attractive, in spite of the brilliancy of their attire. All wore gold-embroidered Turkish slippers, and silk stockings, which in some cases were covered with spangles. Their dress was a loose sacque reaching nearly to the feet, of silk or stuff of bright colour. Over this was a loose jacket buttoned *à la chinoise*, and the head and shoulders were enveloped by shawls of shiny gauze with a gold fringe. One—the Chinese girl—wore hers as a yashmak, but her reason became apparent when, on removing it to drink some lemonade, she disclosed a bruised lip, which may or may not have been the result of personal chastisement administered by her lord and master. Their hands were covered with rings, for the most part set with pearls, which are the chief product of the island. It was amusing to see them looking over a photograph book, where the jewellery to be seen in the portraits was the only thing that interested them. Their opinion of English ladies was evidently lowered when they discovered that they wore so little.

Although only three wives had come on board, they were accompanied by numbers of female attendants. There was also a large gathering of Sulu warriors, but on this occasion they kept to one side of the ship, leaving the other to the ladies, who ranged themselves along the bulwarks like an ornamental border in a flower-garden. Most of

[1] He died in the beginning of 1884. The usual difficulty as to his successor arose, one party declaring for his brother,—the rightful heir,—another for an old uncle with whom he had been on anything but friendly terms. In May, 1886, the date of our last intelligence from the island, the late Sultan's brother appeared likely to gain the throne, but the matter was still unsettled. In spite of the disturbed condition of the country, Captain Schück, the German planter, had been unmolested. Desultory fighting still continued. Any surplus in the population has no doubt been considerably lessened, and the Spaniards behind the loop-holed walls of Jolo on the north of the island are probably biding their time, and will step in when both parties are exhausted. The project of getting the young Sultan to go to Manila, "in order to be invested with his title," has failed.

them were plump little damsels with bright eyes, and though not so good-looking as the Dyak women—who are, I think, the most attractive of all those of Malay race that I have seen—they had more claims to beauty than their mistresses. We regaled them with lemonade and preserved fruits, and supplied them with cigarettes, which they appeared to enjoy thoroughly. Unfortunately they were themselves provided with betel, and before we could interfere, our spotless decks were covered with the juice. The Sultan left his wives to take care of themselves, and wandered about the ship inspecting our arms and machinery, returning now and again to the fascinations of a musical-box, with which he was greatly delighted. It was with the greatest difficulty that we induced him to come on deck to be photographed. We arranged a group of the three wives and the slave bearing their betel-box, the Sultan and his Tobacco Box in Waiting, the two Turks and other exalted personages, but although we explained the operation, nothing would induce them to remain quiet for a single instant, and the patience both of the operator and sitters was fairly exhausted before we obtained a successful negative.

After the departure of our guests some of our party proceeded in the cutter to Parang to stay with the Panglima Dammang, with whom we had already made acquaintance. The distance was barely ten miles, and aided by a light breeze off the land, it was not long before we arrived at our destination. Others of us remained behind at Meimbun, to indulge in our favourite flight-shooting among the parrots. Every evening small flocks of green parrots (*Tanygnathus*) and the little white cockatoo fly from west to east over the village about half an hour before sundown, affording capital sport. The former, of which there are two species,[1] are only of value to the naturalist, but the latter are capital eating, and are free from the bitterness that is characteristic of many of the parrots. Cockatoo pie, I can assure my readers, is really excellent.

[1] One of these, *Tanygnathus burbidgei*, is, as far as is known, peculiar to the Sulu Archipelago.

CHAPTER XIII.

THE SULU ISLANDS (*continued*).

On the day following that of the visit of the Sultan and his wives the *Marchesa* anchored off Parang. The village, consisting of thirty or forty houses in line, is built on piles in the sea, each house being connected with the shore by a separate bridge of palm-stems. Although this method is in use among most Malay peoples in rivers or estuaries, it is seldom that the houses are entirely exposed to the sea as they are here and in New Guinea. Their shape and mode of construction in the latter country are, however, quite different. Here they are mere huts with rather high-pitched gables, the walls made of roughly-constructed *attaps* or mats of palm-leaves.

The *Marchesa* was probably the first European ship that had visited the village, for the Spaniards afterwards told us that they had never been there. The people do not bear a very good name even among the Sulus themselves, and the Panglima was a personage with whom few would have dared to trifle. He came on board with his chief men and attendants very soon after our arrival, as had been previously arranged, and although Meimbun and Parang are only a few miles apart, the difference between his suite and that of the Sultan was considerable. They boarded the yacht in crowds, and though they behaved well, and we had no *contretemps* of any kind, it was evident that they were, on the whole, a very pretty set of ruffians. The Panglima Dammang had returned on the previous day from a battle with his old enemy, the Maharajah Tahil, in which nine men had fallen; but though he had been victorious, he did not seem by any means in a good temper. Although he could have seen nothing of the kind before, he paid not the smallest attention to the yacht or her fittings, and indeed took no interest in anything except some champagne, of which he drank two tumblers. He wore his favourite *parang*, with which, we were told, he had killed thirty men; and as he sat scowling in a corner of the saloon, the thought how easily he might enlarge the

number and add the *Marchesa* to his navy if he chose passed through our minds. Possibly the same idea occurred to our guest also, but if it did he was far too wise to act upon it.

There was a little sea running when the first detachment of his people left for the shore, and the prau, being overloaded, filled and sank about a hundred yards from the ship. There was in reality not the smallest danger, for the men all swam like ducks, and the boat, relieved of its load, floated awash on the surface of the water. The Panglima, hearing the shouting, rushed at once on deck, and seeing what had happened, jumped into our lifeboat with half a dozen of his

VILLAGE OF PARANG.

men, and pushed off to the rescue. It was the only pleasing trait that we ever saw him exhibit.

The country round Parang, though perhaps not so pretty as the neighbourhood of Meimbun, was very pleasant under the rays of the early morning sun, when the grass was sparkling with the heavy dew. Not only is this time the most enjoyable of the whole day in the tropics, but it is by far the best for the collector. A few hours later, when the freshness of the morning has disappeared before the blazing heat of mid-day, animal life has also gone, and bird and beast hide themselves in the thicker jungle till evening. Parang, however, did not appear to be a good place for the naturalist, in spite of the considerable amount of cultivated ground and fruit groves. The soil was wonderfully good—a rich, dark loam of great depth—and the jack-fruit was of a larger size here than I have ever seen it elsewhere. The Papaw (*Carica papaya*), with its palm-like crown of large deeply-cut leaves and bright yellow melon-like fruit, was growing wild, or—more correctly—uncultivated, in the forest. It is curious how little this really excellent fruit is used. Not only is it of delicious flavour,

but it is actually a digestive of considerable power. In the West Indies alone does it seem to be properly appreciated. In the Straits Settlements it appears but rarely at table, while in Java and the Malay Islands there is an idea among the Dutch that it is absolutely harmful.

We came upon a great number of graves in the forest, some of them collected in groups and surrounded by a ditch six feet or more in depth to keep off the wild pigs, others lonely and overgrown with vegetation. Even over the latter, though long neglected, the Champac flowered and strewed its blossoms. Many of the headposts were very tastefully carved, but there were no inscriptions of any kind. Nearer the village were the tombs of a former Datu and his wives, built of stones piled into a dome, and mounted on a slightly-raised platform. A square of bamboos erected above the graves was decorated with strips of white cotton. On the whole, perhaps, these tombs were the most common objects observable in Parang. It would have been interesting to learn what proportion of the occupants had died in their boots, or rather would have done so were such articles in general use in Sulu.

The visit of the yacht on this occasion was a short one, but we returned again overland a few days later. Indeed our movements during the time of our residence among these interesting, but perhaps rather untrustworthy people were rather erratic. At one time we were the guests of the Sultan, at another engaging in a series of pig-hunts with the Panglima of Parang. Then, after a few days in Jolo among the Spaniards, we would ride out to the middle of the island, where a solitary German—a prominent figure in Sulu history—has established himself, and still continues to live, in spite of the ceaseless fighting that goes on around him. The eastern peninsula of the island was the only part into which we did not penetrate. The Maharajah of Loc and his adherents were too uncertain for us to care to trust ourselves in their hands.

From Parang to the Spanish settlement on the northern side of the island is not much more than fifteen miles by sea, and as we steamed along close to the shore we passed many canoes, whose occupants shouted at us, and held up some object in their hands that we could not make out. We stopped and found that they were pearl-divers, and the articles they wished to dispose of were the beautiful iridescent shells in which the pearls are found. The banks in and around the Sulu Archipelago are almost as well known as those of Torres Straits, and the Sulus are probably the best divers in the world. I have seen few men better proportioned or more athletic-looking—none certainly in this part of the world—and clad only in a sharp-peaked Bornean hat and a narrow waistcloth, their lithe figures showed to the best advantage. They had no pearls for sale, and the prices they asked for the shells

were too high for us to come to terms, so we resumed our course. About seven miles west of Jolo, and little more than a mile off shore, the small island of Tulian is passed on the port hand. A few years ago the Spaniards had a small detachment of soldiers here, a sort of outpost to keep a watch upon the movements of praus. It was a constant source of employment to the Sulus, who for a long time made frequent, and invariably successful attacks upon it by night, cutting down the sentries and slaughtering the cattle without the loss of a single man on their side. So silently were these raids carried out, and so demoralising was their effect, that the Spaniards eventually abandoned the post, and the island is now deserted.

Jolo, as it is spelt by the Spaniards, rejoices in many names. It appears as Sulu in the English charts, but the Bornean traders speak of it as Spanish Town. To the natives it is Tiangi,—"the market-place," while Admiral Keppel and Sir Edward Belcher mention it as Soog, though this latter name, with its varied spellings of Sugh and Soung, has long disappeared. The town was in old days the capital of the island and the residence of the Sultan, and at the time of Belcher's visit was built much in the same manner as Brunei, the "Venice of the East." The buildings ran out in three lines into the sea, the piles of the outer houses being in twenty-four feet of water, and the intervals between the rows admitting of H.M.S. *Samarang* being secured at the mouth of the main street.[1] Hardly a trace of this native town now remains. The Spaniards, who permanently established themselves here in 1878, completely destroyed it, and set to work to build a fortified town, which should give them, once and for all, a secure footing on the island.

We arrived off the settlement at mid-day. It is a taking place at first sight, as indeed any place in the island must be. To the right rise the graceful slopes of Buat Timantangis, while the white houses and grassy glades give a homelike appearance to the little town, which is in itself attractive. We were a little uncertain as to our reception by the Spaniards, for we knew that the relations between them and the natives, with whom we were on intimate terms, were anything but cordial. But we were destined to be most agreeably disappointed, and I may here say that it would be impossible to meet with greater kindness than was shown us during our visit by the Governor—Don Julian Parrado—and his officers. We anchored in ten fathoms not far from the shore. There is no harbour, but gales are of great rarity in the archipelago, and the anchorage is protected to the north by the Pangasinan group of islands. Our anchor was hardly down before a pleasant-looking young Spanish officer boarded us, with the compliments of the Governor and offers of service, and the information that the

[1] "Voyage of H.M.S. *Samarang*," Belcher, vol. i.

band would play at five o'clock. We replied with such suitable Spanish politenesses as our vocabulary mustered, and rowed ashore at the hour appointed.

I doubt whether any island in the world presents such curious anomalies as Sulu. At the south a semi-barbarous court, with a boy sultan of sensual habits, and an authority that is practically *nil.* The rest of the island in a feudal condition, parcelled out among half a dozen or more petty despots who are little better than savages, and eternally at war with one another. On the north a large prison, some acres in extent, outside of which no Spaniard dare show his nose. Here are cafés, two or three billiard-tables, a band that one would listen to in Vienna or London with pleasure, fever and dysentery, and complete and hopeless *ennui.* And in the middle of the island, somewhat mistrusted by the Spaniards, although a friend of the present Governor, but admired and respected by the Sulus in spite of sundry fights he has had with them, lives the German sea-captain, Schück, leading a planter's existence among groves of cacao, coffee, and Manila hemp.

We landed at an excellent wooden pier which runs out into the sea for three or four hundred yards or more, and has a lighthouse built at its extremity. The Governor, whom we found living in a house constructed entirely of corrugated zinc—an arrangement which seemed admirably adapted for raising the temperature within to fever heat—received us very kindly, and showed us over the town. It is completely surrounded by a loop-holed wall about twenty feet in height, behind which sentries pace incessantly. The gates are shut at sundown, after which no one is permitted to enter. On the seaward side there is no wall, but a gun-boat is always stationed at the anchorage, and the pier and shores are patrolled by soldiers. Thus closely imprisoned, the Spaniards have wisely kept their men employed to the utmost of their power. They have recovered a great deal of ground from the sea by building dykes and filling in the ground behind them. Hospitals and barracks have been constructed on piles over the sea, but no plantations have ever been attempted except by one man, who laid out a small sugar estate close to the walls, only to have it completely destroyed by the Sulus in the following year. In spite of the youth of the settlement, the three or four streets which it possesses look not only extremely neat and clean, but even picturesque, planted as they are by rows of bananas and cotton-trees on either side. There is a market-place formed of palm-leaf sheds, beneath which the Manila men chatter and discuss the merits of their fighting cocks, which, slung up in handkerchiefs with their legs protruding, or tied to a post of the stall, are visible in all directions, for cock-fighting is as much a ruling passion here as it is in Cuba, and at any street-corner one may see a couple of natives putting their birds together for half a minute's friendly spar without spurs.

The Governor, who was a colonel in the army, chatted to us in excellent French, and gave us some information about the town. Life in it must indeed be monotonous and trying to a degree; a mere vegetative existence, with little or nothing novel to break the dull round save the advent of cholera or a Sulu running *amok*. Except in parties of ten or a dozen fully armed, no one leaves the town; and the evening promenade in the Plaza to listen to the band, the Sunday cock-fighting, and an occasional water-party appear to be the only amusements. The garrison is composed of six companies of the Manila native regiments,

A STREET IN JOLO.

under a commandant and about twenty-five officers. These latter, with their wives and children and sixteen artillerymen, are the only Europeans. They number about 120. The rest of the inhabitants are made up of a very large number of convicts, sent from Manila and other parts of the Philippines. They seemed tolerably happy and contented, wore no chains, and were said to be very harmless.

Waiting for our boat to take us off to the ship, we witnessed a marine phenomenon as pretty as it was extraordinary. The calm water around the pier, itself not phosphorescent, was full of a *Pyrosoma*, or some such creature, that was most strongly so. These creatures progressed slowly in a very irregular serpentine fashion, leaving behind a vivid phosphorescent train which lasted for some little time. There

were great numbers of them, and the effect was as if the water were full of fiery snakes. We did not succeed in catching the author of these "sea fireworks," as our sailors called them, and during our six weeks' stay in these waters we never noticed the phenomenon again.

There are several wells within the town of Jolo, but the water is not particularly good, and the best is obtained from a spring on the beach about three-quarters of a mile to the eastward. Its situation is a curious one, the water bubbling up in a strong stream between high and low water mark [1] into a sort of rocky basin, overhung by the gnarled branches of a large *Ficus*, which must be of great age. The Governor had cautioned us as to the character of the natives in the neighbourhood, and told us that several of their men had been krissed or speared while watering, which operation was as a rule undertaken with a strong guard. Apparently, however, the relations between the contending parties are of the politest character, for he added that he would send a message to the chief, informing him that we were English, and asking him not to molest us. Either this or the northern fairness of our skins was sufficient, and we landed to shoot and get water for the ship on several occasions without any *contretemps*. A little incident nevertheless took place on our first visit which showed us that the Governor's caution was not unnecessary. One of us, noticing a rare bird alight in a tree close by, jumped hastily out of the boat and went towards it. Several natives were standing round, and apparently knew who we were, but another suddenly appearing on the scene, and probably mistaking us for Spaniards, marked his man, and feeling for his *parang*, went on the track of the unsuspecting sportsman. Before he had gone two steps he was stopped by the others, but, had he only been a little nearer, the number of our ship's company would probably have been reduced by one.

Our stay at Jolo was varied by excursions into the interior of the island and several pig-hunts with the Sultan and the Panglima of Parang. The latter was as keen a sportsman as he was a formidable warrior, and with good weather and plenty of pigs we had one or two capital days, although we did not on any occasion kill more than eight. Few sights could well be more picturesque than our "meets" on the park-like uplands of the beautiful island. The brilliant colours of the dresses; the scowling face of the old Panglima giving his orders; the advance of the line through the long grass; the spears glittering in the blaze of sunshine; the excitement and rush when piggy broke cover; the ride homeward by moonlight to Meimbun, or to the stockaded house of the Panglima; the strangeness of our surroundings as we dropped off to sleep on the cool hard mats,—all these are among our most vivid recollections of

[1] This, though a curious, is not a very unusual phenomenon. Such a spring exists at Walvisch Bay in South-West Africa, and I have also seen them in Sumbawa and other places in the Malay Archipelago.

Sulu. The natives are most fearless riders, and mounted on their sure-footed little ponies, will go at full gallop over the roughest ground. Like almost every wild tribe I have seen, the people ride with the big toe only in the stirrup, which here is usually a simple loop of rope.

We were even better friends with the Spaniards than with the Sulus, and it was curious thus to alternate between two races who had been bitter enemies for nearly three centuries; on one day in almost complete savagery, the next drinking coffee and listening to selections from Wagner rendered by a band which only a few months previously, before the advent of cholera, had been nearly 100 strong. All the performers, with the exception of the conductor, were of native or mixed blood, from Manila, and their instruments had been sent out from Paris. Sitting in the little creeper-covered arbour in the public gardens, with our excellent friend the Governor pouring out a string of amusing absurdities between the pieces, we could shut our eyes and fancy ourselves in Nice, or some other like haunt of fashion in far-away Europe. If we opened them the illusion vanished quickly enough. At the end of the street the sentry paced up and down behind the loop-holed walls, and between selections from the "Nozze" and "Robert le Diable" the sergeant of the guard placed the heavy key of the gates in the Governor's hand.

The northern side of the island is said to have a greater rainfall than the southern. The Spaniards had not taken any observations, but we gathered that it was considerable. The first three months of the year are on the whole fine and dry, but at the end of April or the beginning of May the rains come, and the monsoon changes. Part of July and September and the whole of August are again fine, but in the middle of September the second rains usually begin, and last until the end of the year. The easterly monsoon does not set in steadily before November. During our visit in April and May the thermometer on board ship stood pretty steadily at 80° or 81°. Inland the temperature was three or four degrees higher. Cholera had visited Jolo during the previous year, doubtless imported from Manila, for as far as we could learn only a few cases occurred on the island generally. In the town itself, however, a large number of people fell victims, and, sanitarily speaking, it was in very bad condition at the time of the *Marchesa's* visit, although the streets and houses were beautifully clean. The garrison were dying at the rate of one man a day, chiefly from dysentery and fever, the latter disease being especially rife, owing no doubt to the amount of digging always going on within the precincts of the town. This mortality is, however, no criterion whatever of the healthiness of Sulu itself, which appears to be equal to that of any tropical island in this part of the world, and far superior to that of Northern Borneo. The crowding, the disturbance of the soil, and the condition of hopeless

ennui resulting from the prison-life of Jolo,—each of these is sufficient alone to make any tropical station unhealthy. When they are combined the only wonder is that the death-rate is not higher.

Our friend Don Julian, always bright and cheerful in spite of his ill-health, and with a mixed vein of keen humour and kindly cynicism in his manner which rendered him a charming companion, seemed alone to prevent Jolo from falling into a condition of utter stagnation. He was doing his very utmost to conciliate the natives, but his efforts had apparently been almost fruitless, for though he might succeed for a time, fresh outrages and murders would soon place the two parties on their old hostile footing. It is curious to note how quickly the neighbouring Philippine islanders submitted to Spain's yoke, and how prosperous and contented they are at the present day in spite of earthquakes, typhoons, and tidal waves. But with the treacherous and fanatical Sulus,—possibly from their religion,—little or no progress has been made. During the war of succession in 1881—for in Sulu the death of the Sultan is always the occasion of a general outbreak—the natives came up to the very walls of Jolo, and tried to carry it by assault, with the result that a few Spaniards and a large number of their enemies were killed and wounded. Affairs were quiet for a time, but the people of Loc—with whom the Sultan, at the period of our visit, was himself at war—having been constantly successful in lying in wait for and spearing the Spanish just outside the walls of Jolo, an expedition was organised at the end of 1882, and in the engagement which took place about thirty Sulus fell. Just previous to this a Loc man, armed with his *parang*, had succeeded in getting into Jolo unperceived.[1] Walking to the Plaza he drew his weapon, and rushing upon the people began cutting down men, women, and children indiscriminately. Although almost every one goes armed in the town, he was with some difficulty overpowered, and he had killed no less than seventeen persons before he was finally despatched! Truly it can be said that even life in Jolo is not without its excitements.

On the 1st of May we found ourselves again at Meimbun, after another day's pig-sticking with the Panglima Dammang, in which six pigs had bitten the dust. As we rowed up the little stream we noticed some of the natives busily engaged in repairing their large praus, which were hauled up on the mud close to the market-place. The Sulu boats are of two kinds only. The *dapang*, or smaller one, is usually a "dug-out," with its freeboard heightened by planks. So far it is a common enough model in Malay waters, but its peculiarity consists in both bow and stern being cigar-shaped. Above the "ram" thus formed the two top planks are bent sharply outwards, making a deeply-flanged bow of very characteristic shape. These boats are provided with large

[1] The Sulus are allowed to enter the town, but are searched for arms at the gates.

bamboo outriggers on both sides, and will stand tolerably heavy weather. The larger praus, which are used for voyages to North Borneo, Samboanga, and other more distant parts, are from 12 to 20 tons' burden, and are strongly, though rather clumsily built. Their sterns are often highly ornamented with carving. We were much struck by Sulu taste and execution in this way, whether displayed on tombstones, praus, or house decoration. Over the door of the Sultan's harem was a very pretty bit of scroll lattice-work, but the best example of stone-carving that we saw on the island was a large slab which lay half buried in the mud and coarse vegetation of the river-bank just below the Sultan's house. The people were rather amused at my sketching it, but I could not get them to tell me what it was. Most

CARVED STONE, MEIMBUN.

probably it was originally intended for a gravestone, but when we were there the washerwomen of the household used it as a slab on which to knock off the buttons of the imperial shirts.

The Sultan had on several occasions expressed his desire to be photographed, and accordingly one morning, having previously made an appointment at nine o'clock, we rowed ashore, and, after two or three hours' collecting, arrived at the Istana at half-past ten. We were a good half hour too early. The Sultan, dressed in an ordinary Oxford shirt, with a short silk *sarong* and European trousers, made his appearance with the charming nonchalance that characterises all well-bred people who are late. We sat and drank chocolate for some time, and at length, after a few delicate hints on our part that we were quite ready, he again retired for half an hour or so, reappearing in full Sulu costume of bright yellow trousers fitting close to the skin, a magenta velvet coat covered with small gold plaques set with pearls and emeralds,

and a small turban. The latter was of a kind peculiar to Sulu—of brilliant crimson silk worked alike on both sides with flowers, and not much larger than a good-sized handkerchief. We congratulated ourselves on this unusual rapidity, and were preparing our plate when we discovered that His Royal Highness had not the smallest intention of being photographed in this costume, but was merely waiting until another was ready. This turned out to be a quasi-European dress, of dark blue cloth jacket and trousers embroidered with gold. But as the straight gold stripes upon the trousers did not seem sufficiently decorative, he set his wives to work to make an additional looped trefo l border of the same material, and retired into the other room. The hours passed on and still the members of the harem sat stitching away, so, tired of waiting, we went to talk to them. They were evidently as much disgusted as we were, and anxious to know if the job could be done quicker, they put the imperial unmentionables into our hands, and told us that they would be delighted if we would finish them. The design, we found, had not even reached the knee, and feeling that active measures were necessary, we again interviewed His Majesty, and represented to him that he looked more than usually charming in his Sulu dress, that he would look even better in the photograph, and finally that, in European countries, curls and twiddles of gold lace were only worn down the leg by people of low rank, such as the Betel Boxes in Waiting and the like. Happily we succeeded in persuading him, and after he had again retired to make a few additions to his jewellery, we managed at length to form a group. Everything was going swimmingly; the hand was on the cap waiting for the Sultan's eye to fix itself upon the spot indicated, when suddenly jumping up, and clapping his hands, he declared that he would be taken on horseback! "*Baik sakali itu!*" A capital idea! The whole operation had to be gone through from the beginning again.

In spite of the irresolution of the Sultan, it appears that he can occasionally make up his mind. A short time before our arrival a burglarious Sulu entered the house of a Chinaman,—a few of that race being permitted to live and trade at Meimbun. It is not often that Johnny is caught napping, and this one was no exception to the rule. But instead of taking to flight, the Sulu cut down the unfortunate householder with his *parang*. On recovering, the Chinaman laid a complaint before the Sultan, who, on hearing the evidence, at once ordered the Sulu to be decapitated.

At Meimbun we once more resumed our old plan of collecting, and every morning, shortly after daybreak, the little crowd of children awaited our arrival at the bamboo bridge. Our way generally took us for a short distance over a well-trodden path leading to the market, and we used to meet and exchange salutations with small parties of Sulu

warriors and their wives coming in laden with fruit and other produce. The greater number were mounted on the sturdy little ponies for which the island is famous, and at the ends of their spears dangled a couple of fowls or a bunch of bananas. The market itself would have rejoiced an artist's eye. The bright yellow of the areca and coconuts against the fresh green *sireh* leaf; the picturesque groups of natives bargaining round the stalls; the little piles of spears leant up against the corners of the attap sheds; the Chinamen with their large Bornean hats sitting behind their shelves of "notions"; the swarms of butterflies hovering over the *débris* of jack-fruit husks and the like, together formed a scene which was always novel and amusing. No description that I could give would convey to my reader any idea of its busy life and brilliant colouring.

Mr. Burbidge, who paid a short visit to Sulu a few years ago, mentions the fact of some of the natives being provided with shirts of chain armour.[1] In spite of our being on the look-out for them we saw very few, but at a later period we succeeded in obtaining two. They were without the brass breastplate described by Mr. Burbidge. These articles are undoubtedly of European manufacture, and it is extremely probable that they were taken in bygone years by the Sulus from their old enemies the Spaniards. Where spear and kris are as yet unsupplanted by the rifle, as is the case among these islands, they must, I should think, be extremely useful.

Our ornithological rambles during this, our second visit to Meimbun, were productive of several species which we had not previously obtained; among others of two or three rare pigeons. Of all parts of the world the New Guinea region is perhaps the richest in these birds, but we found them tolerably abundant here, and obtained no less than eleven different kinds. But our greatest prizes were two birds hitherto unknown to ornithologists. The first, a bush-shrike of brilliant colouring, with the head and shoulders shining bluish-black and the rest of the plumage bright orange-yellow, I afterwards named after the yacht (*Pericrocotus marchesæ*). The other bird (*Macronus kettlewelli*, p. 232), a babbler, with a curious tuft of white, hair-like feathers springing from the back, was an interesting species, of which we unfortunately obtained a single specimen only.[2]

A day or two afterwards we returned to Parang on our way to Jolo, and the ship, as on the former occasion, was visited by crowds of natives, among them being a Datu or chief who was not upon the best of terms with the Panglima Dammang. We learnt, in fact, that hostilities were frequently apt to break out between them. The most

[1] "The Gardens of the Sun," p. 206.

[2] *Vide* paper by the author, A Provisional List of the Birds inhabiting the Sulu Archipelago, "Proc. Zool. Soc." 1885, p. 247.

THE MARKET-PLACE, MEIMBUN.

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amusing of our visitors was a very fat, good-natured-looking old Sulu, who was said to have been the most renowned pearl-diver in the archipelago. He had on one occasion reached a depth of twenty-seven fathoms. The Sulus are probably the best divers in the world, and think nothing of depths of less than seventeen or eighteen fathoms. We were anchored at the time in about fifty feet of water, and noticed that the natives went down to bring up the old tins and empty bottles we had thrown overboard. They do not use any weight, but swim straight downwards.

Returning from a shooting excursion next morning, we took refuge in the Datu's house to avoid a heavy shower of rain. He received our invasion with calm reserve, apparently not being too pleased to see us, but after a time he became more friendly. His house, like the others, was built on piles over the sea, with a rickety bridge about eighty yards in length connecting it with the shore. The floor was, as usual, constructed of split bamboos, which were so far apart that I nearly broke my leg by putting it through a more than ordinary large gap. Among a little pile of spears in the corner of the room were three guns, one of which was a magazine rifle of American make! Our host was without cartridges for it, happily for the Panglima, and we had neither the wish nor the ability to assist him.

On the day following our arrival at Jolo we were astonished to see a large man-of-war approaching the anchorage. She proved to be the *Wolf*, a German corvette, the officers of which were very anxious to get information as to the doings of the Spanish authorities in the archipelago. This we left them to obtain first hand, and contented ourselves with lending them a couple of charts, of which they were in need. The Germans were at that time extremely jealous of Spanish influence in these and other neighbouring islands, and—somewhat maliciously I fear—we asked them if they recognised the sovereignty of Spain in Sulu. They told us that they were unable to answer the question. By the treaty of March 7th, 1885, they have since admitted it.

We had returned to Jolo with the intention of staying a few days at Captain Schück's plantation. The path thither leads straight out from the back of the town towards the centre of the island, and about four hundred yards from the gates passes a small block-house which the Spaniards have established as an advanced post. The country is but little cultivated in this part, owing to its disturbed condition, but after passing through a picturesque little valley, signs of agriculture become more frequent, and in less than a couple of miles the bungalow, Lukut Lapas, is reached—a large, rambling building surrounded by several outhouses and Sulu huts. The view is an extremely pretty one, with the thick plantations around the house and a bright little rivulet

dividing it from the jungle-covered hills to the westward. Captain Schück had been settled there for four years, and after a short period of squabbles and fights with the natives, in which on more than one occasion he narrowly escaped with his life, he had at length succeeded in establishing a footing, and had made himself respected and looked up to by the people in no common degree. Two years later his wife and family—eight in number, and all under seventeen—had joined him. His history had been one of many vicissitudes. At one time a trader, he had visited most parts of the Malay Archipelago, and had been shipwrecked, captured by pirates—both Chinese and Sulu—and

SPANISH BLOCK-HOUSE NEAR JOLO.

exposed to many other mischances. Coming to Sulu and espousing the cause of the natives against the Spaniards, he took to "gun-running," had his vessel confiscated, and was himself taken as prisoner to Manila. The German Government took up his case; the Spaniards were compelled to release him, and he was ultimately fortunate enough to obtain £1000 as compensation. Such is the respect in which he is held by the Sulus that during his absence his family lived unharmed among them, in spite of their lawless nature and the many factions into which they are split. In great measure this is no doubt owing to his upright and fearless conduct, and to his having taken his own line boldly. As an instance I may quote the following case. Two women working on his estate having been murdered by a couple of their fellow-countrymen, he called a meeting of the chiefs, and obtaining

their consent, rode over to the house of one of the murderers, secured him, and shot him with his own hand. For the other he searched every prau on the coast, and having at length found him, brought him to the chiefs, by whom he was immediately krissed.

Captain Schück's son, a merry boy of seventeen, we found not only a most useful, but an extremely agreeable companion. He accompanied us everywhere, and with his knowledge of the people and their habits, and his extraordinary command of languages, was of the greatest assistance to us. He spoke German, English, Malay, and Sulu with perfect fluency, and was tolerably well acquainted with Bisaya and French. It was amusing to see his easy familiarity with the Sultan, and how he was called in to quiet the domestic jars among the beauties of the harem.

I have rarely seen better soil than that of Lukut Lapas. The lanook, or so-called Manila hemp (*Musa textilis*), was growing with wonderful luxuriance. It is a plant closely resembling the banana in appearance, but of a darker green, and its cultivation is almost exclusively confined to the southern islands of the Philippines. The fibre is of considerable value, being very strong and flexible, and but for the fact that the tree is said not to flourish out of the latitudes above named, it is extraordinary that it should not hitherto have been more cultivated. Like the banana, the lanook is trunkless, its spurious stem being formed by layers of the ensheathing petioles. As the older stems, which are the chief source of the fibre, are cut down, new suckers spring up with great rapidity from the parent root. The fibre is separated by scraping away the pulp with a blunt knife or piece of hoop-iron, and after a certain amount of preparation, is sorted according to its fineness, the coarser quality being made into cordage, the finer spun into a substance which, in the Philippines, is woven with silk or cotton to make dress fabrics. Exported, it is chiefly used in the manufacture of paper. The coffee plantation was by no means so flourishing as the lanook. The trees were affected by mould, and with a leaf disease very similar to, if not actually identical with that produced by the *Hemileia vastatrix* in Ceylon and other countries. It is doubtful whether Sulu is adapted for coffee-growing. It was only to be expected that the *Coffea arabica*—the sole kind that Captain Schück had tried—would prove a failure, but it is possible that the Liberian variety, which has succeeded well at low elevations in Ceylon, might also do so here. Cacao and tapioca were the only other vegetable products grown. The former was doing extremely well. The tree, which was introduced into the Philippines by the Spaniards in the middle of the seventeenth century, appears to have found a thoroughly congenial soil, and I have seldom tasted more delicious chocolate than that we drank in Sulu. Usually the trees do not begin

to bear until they are four years old, but Captain Schück informed us that at Lukut Lapas they had borne well on the third year. The young cacao always requiring shade, the plantations are generally made beneath the *Artocarpus* or other thick-foliaged trees, large clumps of which are so plentiful throughout the island that there should be no difficulty in getting suitable ground for planting.

Wandering about in the pleasant fruit-groves and open clearings, we were able to add considerably to our collections. In the long lalang grass the large ground Cuckoo (*Centrococcyx*) rose before one's feet with a flapping, laboured flight. The tiny Button-quail (*Excalfactoria chinensis*) haunted the same ground in abundance, lying in twos and threes. The natives net them in great numbers, and used often to bring them to us for sale. They live well in captivity in spite of their pugnacity, but the top of the cage must be made of a piece of loosely-stretched linen or sacking, or the birds' constant habit of springing upwards soon causes their death. The common Jungle-fowl of the Indo-Malayan region (*Gallus bankiva*), identical in appearance with our "black-breasted red" game fowl, is very numerous throughout the island, but, owing to its haunting the thicker jungle and being very shy, it is rarely seen. The Sulus have a plan of catching it which seems to be very successful. They tie up a captive in the most frequented haunts of the species, and surround him with springes. The wild birds, attracted by his crowing, come down to fight, and are quickly caught. In this manner it is only the cock bird that is ever secured, and thus, although at one time we had as many as ten cocks tied up to the posts of the verandah, we never even saw the hen. After a few days' captivity they readily permit themselves to be caught and carried about, and become far tamer even than domestic fowls, with which they are freely crossed by the natives. The cock bird has sickle feathers of extraordinary length.

There is one crop deserving of special mention for which Sulu seems particularly suited. The tobacco used by the natives is almost entirely of Chinese manufacture, as they are apparently ignorant of the method of preparation of the leaf, but in the few places in which we found it growing, it appeared to be of remarkably good quality. It is a fact not generally known that the outside leaves—or "wrappers," as they are technically termed—of the better qualities of Havana cigars are grown at Deli, in Sumatra, and that there are but few soils capable of producing them. In October, 1884, the managers of the German Borneo Company landed in Sulu, and, struck with the appearance of the island, determined on planting tobacco. The result of the first year's work was 200 *piculs*, valued at £10 per *picul*. This year (1886) 100 "fields" are under cultivation, which are expected to yield 800 *piculs*—in other words, about 100,000 lbs. The labourers are Chinese

from Singapore, where they are engaged before the Government Agency, and receive their passage and an advance, together equivalent to $60, the half of which only is charged to them. The method of cultivation is as follows. In December the felling of the forest and clearing of the land commences. In April the nurseries are prepared, and the seed, mixed with ashes, sown on the raised beds. The young plants grow rapidly, and in early May—the beginning of the rainy season—they are pricked out in "fields" of 300 by 20 yards, each of which is looked after by its own coolie. The soil is banked up around the stalk of the plant, and the leaves are carefully searched for insects. At the beginning of August the tobacco is fit for cutting. This is done an inch or two below the first leaf, and the plants are hung up head downwards in the drying-sheds until the stalks become dry, when the leaves are cut off, packed in bundles, and carried to the fermenting-shed. Here they are formed into "staples"—pyramidal heaps in which fermentation takes place—the heat being carefully noted by thermometers. When the desired temperature is reached the "staple" is rebuilt, the outer bundles being now placed in the centre. When the leaves are considered fit, they are carried to another shed, where, after being sorted and pressed, they are made into bales ready for shipment. The stalks left after the first cutting grow again, and yield a second and a third crop, which, though inferior in weight, show no deterioration in quality.

The industry thus recently established in Sulu Island has, apparently, every prospect of success. By the manager of the Deli Maatschappij the soil was pronounced superior to the best Sumatran ground. The natives, though sworn enemies of the Spaniards, are tolerably friendly with the Germans and English, and it is to be hoped that, when foreign capital is employed and Spanish influence has become greater, the conversion of the *parang* into the ploughshare may be not far distant, and that Sulu, from a land of bloodshed and rapine, may in time become as peaceful and agricultural as the Philippines.

CHAPTER XIV.

THE SULU ISLANDS (*continued*).

We rode out one afternoon from Lukut Lapas to the house of the Panglima Dammang. There had been some talk about another day's pig-sticking, but we were uncertain about it, as the natives brought in the news that on the previous day he had summoned all his men to proceed against the Maharajah Tahil. We learnt that he had sent a challenge to this potentate, asking him to "come down and fight," and that the Maharajah, ever ready to oblige him, had replied that he would be delighted. "I will fight," he said, "but not with guns. Let us fight man against man; spear to spear, and kris to kris." The event, we believed, had come off that morning, but we could learn nothing certain, and when we pulled up our horses at nine o'clock at night outside the Panglima's stockades we were not at all sure if His Excellency had returned from the battlefield.

It was some little time before they removed the bamboo barricades and admitted us, and riding into the court, which was full of Sulu warriors, we off-saddled the horses, and entered the house. It consisted—as do most of the houses in Sulu, even of those of high rank—of a single large room. In the centre was a raised platform surrounded with curtains. This was the bedroom of the Panglima and his two wives, the remainder of the apartment, which was carpeted with grass mats, forming his living and reception-room. Spears and guns were arranged on one side, and against the wall a few slightly-raised platforms served as sleeping-places for his head men or guests. We took possession of two or three of these berths, where we had often slept before, and, producing our supper, discussed the events of the day. The Panglima, we learnt, had gained a complete victory. Thirty houses had been burnt, many of the enemy killed, and a considerable quantity of loot obtained, and, concluding that our host would be in the best of tempers for a hunt on the following morning, we chatted away merrily over our chocolate and pipes.

Presently the curtains opened and the Panglima appeared, and squatted down without a word upon the dais. A glance at him told us that he was not in a condition to be trifled with, for he looked as black as thunder and took no notice whatever of us. It was in vain that we made our salutations, in vain that our clever little interpreter clad our congratulations on his victory in all the poetic imagery of the East. Conversation falls flat if carried on on one side with a series of grunts, and we soon saw that it would be wisest for us to retire for the night as quietly as we could.

The next day began with an amusing incident. An old woman entered the room with such a guilty look and melodramatic step that the only one of our party who was awake immediately "played 'possum." Having satisfied herself by close inspection that we were all asleep, she made for our bag, abstracted a Turkish towel, and, tucking it under her *sarong*, disappeared with great rapidity. Soon after this little occurrence the rest of our party woke, and the Panglima also appeared. Neither sleep nor the slaughter of his enemies had exercised any softening effect upon him, and he looked in an even worse temper than that of the night before. On our last visit the relations between us had become rather strained, but we hoped that the difficulties had passed over. We had lost several small articles while in his house, and some dollars had been stolen from our clothes during the night. But the chief bone of contention was with regard to some horses and silver-hilted spears that we had bought. The money had been counted twice by us before paying it, but almost immediately afterwards the Panglima had declared that it was eight dollars short. This we had at once denied, and the matter had been allowed to drop, but now our host returned again to the charge, and roughly demanded the money. We were half inclined to make a compromise by tendering four dollars, but feeling that it would show weakness, and that he might think that we gave it through fear, we decided not to do so, and told him of the morning's theft. The woman was sent for, and finding the evidence too strong for her, confessed, producing the towel amid the laughter of the Sulus standing round, who evidently regarded her with great contempt for having been found out. Among these people the Italian proverb, "Peccato celato e mezzo perdonato," is true if we leave out the arithmetic, and it was quite within the bounds of probability that the delinquent had only been acting under orders. This incident, and our firm refusal to pay the money claimed, did not tend further to improve the Panglima's temper, and he growled out that "we English were liars, and that he would have nothing further to do with us." In polite society it is, I believe, the generally-accepted rule that the application of this term compels the insulted person to strike his opponent with violence in

the eye. We were not, however, in a position to take this measure, but replied politely that we should be pleased if he would consider our intercourse at an end, inwardly hoping most sincerely that it might be. We then saddled our horses and rode slowly out of the stockade. It was crowded with people, and we should have had little chance had they attacked us. Fortunately, however, we were not intercepted. It was an unpleasant predicament, from which we congratulated ourselves on having escaped with whole skins.

Our friend the Panglima we never saw again. In the war of succession in 1885 he was one of the first to fall. While leading his men

A NATIVE OF SULU.

he received a spear-wound in the left eye, and thus Sulu was rid of one of the most unmitigated scoundrels that ever trod its soil.

On rejoining the yacht at Jolo we found a Manila man on board who had escaped from the town. He spoke a few words only of Spanish, but complained of being cruelly treated by the Spaniards, and begged most piteously to be allowed to remain. It is a most difficult thing to judge of such cases. From our own observation, and from our constant intercourse with the Spanish officers,—whom we invariably found to be, as far as we could judge, gentlemen in the widest sense of the term,—we were inclined entirely to disbelieve his story. The fact, however, remains that the convicts, possibly weary of the monotony of the life or in dread of the fever and dysentery that carries off their comrades day by day, constantly attempt to escape, although they well know that such attempts are almost invariably

fatal. Unless he can manage to secure a prau, and put to sea on the hazardous chance of reaching some one of the Philippine Islands where he may be safe, the refugee is certain to be krissed by one of the Sulus who are for ever on the watch for such chances around the walls of Jolo. A reward is offered for the recovery of these men, but the Sulus apparently do not often claim it. We ourselves, while at Lukut Lapas, were witnesses of a little drama in which three actors played a part unconscious of our presence. It may perhaps be best described as a rapid procession in Indian file, with an escaped convict leading. Behind him came a Chinaman, anxious to secure his man and the reward, and behind him again a Sulu, *parang* in hand, and probably indifferent which of the two he brought to bag. It was a serio-comic drama in real life, but what was its last act we never discovered. The company vanished in the bushes and we pursued our way.

Don Julian Parrado was very anxious that we should visit the island of Pangasinan, four or five miles to the north of Jolo, where, he told us, there were three curious circular lakes connected by canals—a sort of second edition of the crater-lakes of Cagayan Sulu, as far as we could gather. A picnic was accordingly arranged, the Spaniards being delighted at the prospect of a day's outing without danger; and we started one morning shortly after sunrise with our guests and about five and thirty of the band, whose instruments were, I am afraid, somewhat stronger than our Spanish. The three lakes proved to be a complete disappointment. They were merely mangrove inlets, and though perhaps a novelty to some of our guests, were by no means so to us. Their size, however, was very unusual, and the complete concealment of the passages from one to the other showed us what a perfectly impregnable pirate haunt it would have made. We learnt that it had actually served this purpose until quite lately, but that the settlement of the Spanish at Jolo had proved too much for the occupants. After poling our way through the tortuous channels, which, but for the aid of a native we had with us, we should never have found, we arrived at the farthest lake, where, in the very centre, half a dozen pile-built huts were picturesquely grouped. An incident occurred here which, trivial though it was, showed that the feeling of the Spaniards towards the natives was, in some instances at least, kindly enough. They found a "Moro" ill in one of the huts, and asked me to see him. He had fractured a rib by falling on the end of a pile, and while I was debating what substitute I should use for a bandage, one of the officers standing by took off his cholera-belt and handed it to me. I fear this little act of kindness was lost upon the patient. The Sulu character has no doubt many good points, but, as among most other native tribes with which I have been brought in contact, kindness and weakness are regarded as being very nearly synonymous terms.

It was a matter of great distress to our friends at Jolo that they could not show us any hospitality. I use the word in its restricted British sense, which implies that the only way of entertaining a guest is to feed him. "On ne dine jamais ici; on mange," said Don Julian, deploring his inability to bid us to a feast of any kind. In default of meats for a dinner and partners for a ball, our indefatigable little friend had insisted on getting up a bull-fight in our honour, in spite of all we could do to prevent it. None of us had any love for these performances, and it was with considerable regret that we received our invitation, as we could not, of course, refuse to be present. The convicts had been at work for some days at the ring, and Jolo had been ransacked from end to end for suitable costumes, and when we arrived on the Plaza on the appointed afternoon, we were astonished to find how admirably the affair had been got up. Gaily-dressed caballeros pranced around the entrance as we made our way to the grand box. Opposite to us was the band in its full strength, and to our right the *élite* of Jolo were assembled in another box. Crowds of Sulus and Manila men, gay with coloured *sarong* and *baju*, occupied every available point of observation; flags fluttered from the tops of a hundred bamboos, and the few ladies whose unlucky fate had condemned them to a residence in Jolo came out in the *dernières nouveautés* from Madrid. The boxes were beautifully decorated with flowers, the uprights being covered with palm-leaves, with a single blossom of the frangipane impaled upon each leaflet of the frond.

Bull-fighting is a form of amusement to which I have never as yet succeeded in accustoming myself, and of this particular performance the less said the better. It was, I think, the cruellest I ever saw. The pretty little Sulu bulls are such as can safely be approached and patted, and are without a particle of fight in their whole composition. Could we only have substituted the Panglima Dammang and half a dozen of his chief warriors for them, we might, no doubt, have had some good sport and benefited the island at large. Maddened with the pain of the darts and impelled by the sole idea of escaping from its tormentors, the first bull rushed round and round the ring seeking for some place of exit, and from this arose the only amusing incident of the performance. At the corners were erected barriers to serve for the protection of the intrepid *banderilleros*,—*tablas*, I believe, in the phraseology of the bull-ring. It soon became evident that they were unnecessary, and crowds of natives accordingly took possession, some perched on the top and others peeping between the boards. Behind one of these the bull, in his frantic efforts to escape, succeeded in forcing his way. A scene of dire confusion followed. A heaving mass, from which legs and arms, horns and tail, protruded, was all that was to be seen by the spectators. At length some bold individual succeeded in obtaining possession of the

animal's tail, and by bringing it up with a sharp turn against the corner of the barrier, his further progress was temporarily checked and the people extricated. Finally, however, he effected his escape, and his murder happily took place out of sight.

I need not describe the details of the rest of the entertainment. Given tame bulls and a tyro *espada*, they are better left to the imagination. One thing, however, deserves to be recorded. The third and last bull was—hear it, O ye champions of the ring who lounge in the Puerta—*a cow!* I was pleased to find the Governor at the back of the box, whither I retired. "I do not like bull-fights," he said. I confessed myself of the same opinion.

On the 16th of May we returned to Meimbun *en route* for Siassi and the islands to the south-west. All our Spanish friends had come off to bid us adieu, and we were most heartily sorry to part with them. The Governor especially, with his unvarying *bonhomie*, his keen sense of humour, and his quaint philosophy, had endeared himself to all of us, and we should have liked to take him away from the prison where he had still many more months to serve. Life in Jolo seemed to us to be little, if at all, better than penal servitude. It is certainly more unhealthy, and, as we dipped our ensign, and the farewell strains of the band gradually faded in the distance, we wondered how many of our friends would welcome us should chance lead us again to the shores of Sulu on our return voyage.

Siassi, which, with the neighbouring island of Lapac, forms an excellent harbour, lies about five and twenty miles to the south-south-west of Sulu. A Spanish settlement was formed upon it in October, 1882, and we found no less than three small vessels anchored off it, engaged in transporting stores and building materials. The settlement consisted of a block-house for troops, two or three houses for the officials, and a dozen or so of native huts, among which that of the inevitable Chinaman was of course to be found. It is situated on the west side of the island immediately opposite Lapac, and is under the command of a "Comandante Politico y Militar," Don Jorge Gordojuela, who proved a very pleasant companion, and rendered us every assistance in his power during our two days' visit. Up to that time they had had no fighting with the natives, but apparently did not put any very great confidence in them. A few months previously the cholera had literally decimated the inhabitants. Out of a population estimated at about five thousand, quite five hundred were supposed to have died in Siassi. Lapac, too, suffered in like proportion, and the Comandante told us that in one village he had seen one hundred and twenty-five corpses laid out side by side. It is the custom to keep the dead unburied for five or six days, and the consequences in a climate such as these islands possess is better imagined than described. The account was given us by our

informant with a minuteness of detail that rendered it perfectly horrible.

It would seem that here, as elsewhere in the Malay Archipelago, Europeans are not very often attacked by the disease.

Both Lapac and Siassi are volcanic, and are much denuded of

SCENE ON THE MEIMBUN RIVER.
(*Caryota* with inflorescence, and Nipa Palms.)

forest, so much so, indeed, as to be almost bare in some parts. The rainy season too had fairly set in, and heavy tropical showers fell at intervals

during our stay, so that we were unable to add many specimens to our collections, and thinking that Tawi-tawi—an island thirty or forty miles to the south-west—would probably prove a more interesting locality, we weighed anchor and left on May 19th. We directed our course towards the northern shore, for one of our chief reasons for visiting the island was to see what progress had been made by a Spanish settlement which had been recently established on it. We kept a good look-out, for this part of the archipelago is entirely unsurveyed, and early in the afternoon arrived at our destination, which was revealed at some little distance by the presence of a small gun-boat anchored off the settlement. Seawards, Tataan is protected by a chain of reefs and banks which, as we steamed into the large harbour thus formed, were visible for an immense distance ahead, the yellow sand glaring in the hot afternoon sun. As we approached the ship, a boat put off and the captain came on board. He was in the confidential stage of intoxication, and mounting the bridge wanted to pilot us to our anchorage, intimating afterwards that he would be glad of a fee for his services! This we pretended not to understand, and congratulated ourselves shortly afterwards on having got rid of him.

Tataan had been founded five months before our visit. It was the first attempt of the Spaniards to gain a footing on Tawi-tawi, an island where the natives have a bad name even for Sulus. By no stretch of the imagination could it be called a taking place. A broad, sandy path led from the shore to the large barrack-house, which was flanked on either side by two small buildings for the Commandant and his lieutenants. A force of eighty coloured soldiers were stationed here, but how they were employed or amused it would be difficult to say, for they could not go more than a hundred and fifty yards from the barracks in any direction, the dense jungle having only been cleared for that distance round the buildings. The Sulus were supposed to haunt the bush, and the garrison had already lost one or two men, of whom no trace had been discovered. Either they had been krissed or had lost their way in the jungle. Existence here seemed, if possible, several degrees worse than at Jolo. The only amusement was to bathe in a pretty, creeper-covered little bath-house, through which the streamlet of clear water that supplied the settlement had been led.

The Commandant was pleased enough to have the dull monotony of his life interrupted by our arrival. He spoke Portuguese fluently, and aided by our letter of introduction from Don Julian Parrado, we were becoming very good friends when the door opened and the captain of the gun-boat reeled in. He helped himself to the Vermouth unasked, and turning round on us, abused us in the most violent terms for not having called on him before the Commandant—he "would teach the English to be as insolent to him again," and so on, the greater

part of the harangue being, in the language of the police-courts, unfit for publication. He finally concluded by spitting in the Commandant's face. We were on the eve of a row, for the brute was not sufficiently drunk to be harmless, but it happily passed over, and we left the house at once without further incident. The sight was scarcely an edifying one to the native soldiers by whom we were surrounded.[1]

Tawi-tawi is, and has been from time immemorial, the haunt of pirates. In these days of steam few large vessels fall into their hands, but for praus and small sailing ships insufficiently armed the locality is a dangerous one. The chief strongholds of these people are in the mangrove-lined shores of the southern part of the island, where, guarded by a network of reefs and shoals, they can bid defiance to any gun-boat sent against them. The Spanish settlement at Tataan is but a small beginning, but now that the supremacy of Spain in these seas is recognised by the European Powers, and the establishment of the North Borneo Company close at hand has caused a considerable development of trade, the islands have ceased to be the no-man's-land that they have hitherto remained, and the days of piracy are practically numbered. Tawi-tawi is about forty miles in length, is possessed of several good harbours and an excellent soil, but as yet it has been little cultivated. The northern coast appeared everywhere covered with dense jungle, but the south side is said to abound in natural clearings and to resemble Sulu Island. In the neighbourhood pearl-fishing is carried on to a considerable extent, but the pearls are stated to be of no great size.

In spite of the comparative proximity of the two countries the fauna and flora of Borneo are remarkably distinct from those of the Philippine Islands. Borneo, as we know, is almost typically Indo-Malayan in its zoological characteristics, much more so indeed than Java, in spite of the far greater extent of sea which separates it from the Malay peninsula. Its flora shows an equally great similarity to that of the latter country, and, if we pass to its physical aspect, we find that not only is the island devoid of recent volcanoes, but its geology is entirely continental. Were we to look at a chart we should see that, like Java and Sumatra, it is connected with the mainland by a submarine bank of vast extent, on which the soundings are everywhere extremely shallow. In short, it can be affirmed with the most absolute certainty that at one period of the world's history — geologically speaking, a comparatively recent one—Borneo was united with, and formed the south-eastern limit of the great Asiatic continent.

The Philippine Islands, on the other hand, are in every way of a

[1] We wrote to our friend the Governor of Jolo about this individual, and on our return from New Guinea learnt that he had been dismissed his ship. From what we saw of the Spanish officers, I am bound to say that such an instance as the above must be regarded as absolutely exceptional.

different character. Taking the mammalia first, we find that only one monkey inhabits the archipelago as against the numerous species of this order found in Borneo and the other Indo-Malayan Islands. There are no elephants, rhinoceros, tapirs, sun-bears or tigers, and but very few small rodents. Among the birds a large number of characteristic Malayan genera are absent. On the other hand cockatoos and Brush-turkeys (*Megapodius*), both of which are peculiar to the Austro-Malayan sub-region, inhabit the islands, together with numerous species of pigeons, whose abundance is a characteristic feature of the same zoographic subdivision. The flora, so far as is known, shows similar peculiarities, for, in addition to the absence of many typical Malayan genera, a large Australian and Austro-Malayan element is present in the archipelago.[1] Geologically also the Philippines present very distinct features. Although the occurrence of gold in quartz veins, together with lead and copper, indicate the presence in some places of rocks of an ancient epoch, the islands are to a great extent purely volcanic and tolerably recent.[2] Their geographical history is a difficult one to decipher. That they were at some period more or less connected with the Indo-Malayan continent is most probable, for in no other way is it easy to explain the presence of many well-marked Indian forms. Such a connection, supposing it to have existed, may possibly have been through Formosa with the northern limit of the Indo-Malayan sub-region, which would in a measure account for the absence of many of the larger mammals. This supposition is somewhat borne out by the existence of a shallow submarine bank between Luzon and Formosa by way of the Bashee Islands, and by the presence of a very marked northern element both in the fauna and flora. A similar submarine connection, however, also exists with Borneo through Palawan, and from the little we know of the latter island it would seem as if the Bornean and Philippine faunas here commingled. But at whatever point to the south and west this junction with the mainland may have occurred, it is most probable that it was of a more or less temporary nature,—insufficient at least to permit the immigration of any but a few species. There is a final hypothesis—perhaps more tenable than either of the preceding—that the absence of Malayan forms is due to subsidence of the islands at a period subsequent to their separation from the continent. Be this as it may, however, the fact remains that the Philippines are markedly insular in their fauna and flora, and have been peopled to a considerable extent from the Austro-Malayan region.[3]

[1] On the Flora of the Philippine Islands and its probable Derivation, R. A. Rolfe. "Journal Linn. Soc." vol. xxi. p. 295.

[2] Stanford's Compendium, "Australasia," Fourth Edition, p. 268.

[3] *Anoa depressicornis*—a most peculiar form of wild ox supposed to be confined to Celebes (see p. 332)—is reported to be found also in Mindoro, but this fact has not as yet been proved.

Connecting then, as they do, two countries between which such considerable differences exist, the Sulu Islands offered us most interesting problems for solution. Previous to the visit of the *Marchesa* little or nothing was known of the zoology of the archipelago, although a few birds had been brought home by Mr. Burbidge, the well-known botanist. Our own ornithological collection numbered considerably over two hundred specimens and comprised sixty-four species. This list is of course by no means an exhaustive one, but, as will be seen, it is more than sufficient to show the main source from which the bird-life of the archipelago is derived.

If from these sixty-four species we deduct those—for the most part of wide distribution—which are common alike to Borneo and the Philippines, we have thirty-eight species left. Of these, two were entirely new, and one (*Carpophaga pickeringi*) appears to be confined to Sulu and a few small islands to the north of Borneo. Three others (*Dicrurus pectoralis*, *Ptilopus formosus*, and *Artamides pollens*) are Celebean and Moluccan birds. Of the thirty-two species remaining two only are Bornean and no less than thirty Philippine.

The same evidences of absence of a former connection with, or at least of a long separation from, Borneo are apparent if we turn to the mammals. The pig is, in all probability, an introduced species. A monkey is said to be found on Sulu which is probably *Macacus cynomolgus*, but we did not shoot it, and the only species of deer existent on the island we were unfortunate enough to fail in obtaining. No other animals, except the rat and various Pteropi, came under our notice during the whole of our visit. In Borneo the naturalist might obtain twice as many species in a single day. Mr. Burbidge's researches in the botany of the archipelago tell the same tale. "In Sulu," he says, "the flora showed a marked resemblance to that of the Philippine and Celebes groups."[1]

Zoographically, then, Sulu is purely Philippine, just as it is politically by the treaty of 1885. If we consult the charts of the islands we shall see the explanation of it. The Strait of Basilan shows soundings of from thirty to forty fathoms only, and from that island south-westwards to Tawi-tawi the depths are such that a ship could easily anchor at almost any point on the submarine bank connecting the group. West of Tawi-tawi, however, the level of the sea-bottom completely changes, depths of 100 fathoms or more being obtained close in-shore, while in the fairway of the Strait, which is known as the Sibutu Passage, Captain Chimmo was unable to get bottom at 500 fathoms. The distance across the Strait is about eighteen miles, and the surveys hitherto made seem to show an equally precipitous slope of the eastern shores of Sibutu Island. There is at present no exact

[1] "The Gardens of the Sun," by F. W. Burbidge, p. 343.

MACRONUS KETTLEWELLI.

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information with regard to the soundings between Sibutu and Borneo, one point of which, Tanjong Labian, is distant only twenty miles, but since many islets, reefs, and sand-cays are known to intervene, it is almost certain that they are not of any great depth. The Sibutu Passage thus seems to be the natural delimitation of the Philippine Archipelago, and the traveller crossing it eastwards from Borneo experiences a change in the nature of his surroundings, which, although perhaps not actually regional, is quite as striking as that which Mr. Wallace has shown to exist at the Lombok Strait.

Mr. Burbidge, in the work already quoted, states that the Sulu

A SULU GIRL.

language "approaches that spoken by the inland tribes of North Borneo,"[1] a statement in which I venture to think that he was mistaken. It appears to be closely allied to the Tagalog, and the so-called Bisayan of the Philippine Islands, but to abound with Malay and Javanese words, which have doubtless been introduced with Mohammedanism. The Arabic character is, I believe, the only one in use in the archipelago, but there are probably not many of the natives who are acquainted with the art of writing. Malay is very generally spoken by the coast dwellers, especially on the western side of the island, but in the interior it is little known except by the chiefs.

The history of the archipelago, were it written, would consist of little else but an account of the constant civil wars which have raged

[1] There are of course many settlements of the Sulus in North Borneo, especially in the neighbourhood of the Kinabatangan. Perhaps it is to these that Mr. Burbidge refers.

on the island, and the almost equally constant struggle with the hated "Castillans," who, almost from the very date of their seizure of the Philippines, sought to establish their power in Sulu. Three centuries have passed away since that time, and it cannot be said even now that they have advanced much beyond "suzerainty" in the English latter-day acceptation of the term. Wearied of constant feuds, the Spaniards directed large expeditions against the island in 1628 and 1637, but their efforts were fruitless, and in 1646 they concluded a treaty by which, under certain conditions, they agreed to evacuate the main island and retire to Tapul, Siassi, and Pangutarang. In reality they were making a virtue of necessity, for at this period they were in constant dread lest their enemies should call in the Dutch to their assistance. The treaty was hardly concluded ere it was broken, but it was not until many years later that any decisive steps were again taken for the conquest of the islands. In 1731 a fleet of thirty Spanish vessels attacked Sugh, anticipating an easy victory, but so well did the Sulus fight that they succeeded in capturing their enemies' colours, and the fleet shortly afterwards sailed away. A few years later the Spaniards were again established upon the island with a garrison of 100 men, and made renewed but fruitless attempts to subdue this warlike and untamable race.

In our own time, as may be gathered from the foregoing pages, matters have been little, if at all, more settled. In 1871 an attack in force was once more directed against the chief island, and fourteen gun-boats and other vessels bombarded and destroyed the large native town where Jolo now stands, and afterwards burnt some villages on the coast. A blockade was established, and the Spaniards commenced building Jolo and its fortifications. In February, 1876, their flag was hoisted. It floats at only three other settlements in the archipelago—Siassi and Tataan, to which I have already alluded, and Ysabela in the island of Basilan.

By the Agreement concluded March 7th, 1885, between England, Spain, and Germany, with reference to the Sulu Archipelago and North Borneo, the sovereignty of Spain is recognised over the entire archipelago, by which is understood all the islands lying between Mindanao and the Bornean coast. Spain renounces all claims to North Borneo and the islands of Banguey and Balembangan, together with those of the Malawallé Channel, in favour of England, and also acknowledges British sovereignty over all the islands within three miles of the mainland of North Borneo. It is stipulated that there shall be perfect freedom of commerce and navigation in the Sulu Archipelago. Neither export nor import duties are to be levied, and the British Government undertakes similar obligations with regard to the territories of the North Borneo Company.

CHAPTER XV.

BRITISH NORTH BORNEO.

SOME FOUR OR FIVE years ago the British public learnt,—with some interest perhaps, and certainly with no little astonishment,—that in a remote corner of Borneo, the very coast-line of which was hardly known, a "New Republic" had suddenly sprung into existence; a private company established by Royal Charter, a nineteenth century East India Company on a small scale which, it was said, was destined to revolutionise the East, and to open up a new and salubrious field for the superabundant agricultural talent which is generally believed to be the endowment of most young Englishmen, and to be evidenced by a love of out-door exercise, a tendency to smoke short pipes, and a disinclination for all except the most cheerfully-bound literature.

The Executive was formed upon the most approved principles. There were residents and assistant residents, immigration commissioners, surveyors, superintendents of agriculture and the like, and there was certainly no lack of room for them to exercise their proper functions. The British North Borneo Company's steamship *Leila*, 276 tons (Thames measurement), formed the nucleus of a future navy. Cannon were imported, and Sikh policemen to discharge them. More peaceful avocations were not discouraged. The Sabah Mutual Supply Association was formed, upon whose premises various intoxicating liquors were permitted to be consumed, and the presence of billiard-tables soon rendered civilisation altogether complete.

With all these, and many other advantages, it was not to be supposed that British North Borneo, or Sabah, as it is more tersely called, would be content to remain unseen and unknown. The Company hen had laid its egg, and was wisely determined that the world at large should become fully aware of the fact. A book was produced which set forth the many advantages of the country. Various contributors to the journals of Hongkong and the treaty ports of China visited the new territory, and were astonished to discover that the soil, as well as

could be judged from the samples submitted to their examination in biscuit-tins, appeared to be peculiarly adapted for the growth of every kind of tropical produce. The dangers of the return voyage over, they wrote in glowing terms of the "New Eldorado," and spoke of the great future that lay before it. Their exertions were not without result. A stream of Chinese immigration set in, which rapidly increased in volume. The value of land in the settlements rose enormously. At the beginning of 1883, urban lots in Sandakan which, but a couple of years before, were dense jungle where a white man had never set foot, fetched as much as £896 per acre, and in April of the same year the Chinese were pouring in in shoals, and land-speculation had reached its height.

Before enlarging further upon the achievements and vicissitudes of the Company, and describing our experiences of the new territory, a few words on the history of its foundation are necessary. In bygone days the whole of Borneo was, nominally at least, under the authority of the Sultan of Brunei,—the former name being merely a corruption of the latter. At the present time his possessions have waned to almost infinitesimal proportions. Brunei is now no longer synonymous with Borneo. The Dutch own the southern three-fourths of the island, and of the remainder the larger portion to the west is under the rule of the Rajah of Sarawak, who has now extended his dominions as far eastwards as Barram Point. The British North Borneo Company occupy the extreme north-east, and the Sultan's country is thus sandwiched between two English states, with one of which it will doubtless before long become amalgamated.

In December, 1877, a Mr. Alfred Dent, in conjunction with a certain Baron von Overbeck, concluded negotiations with the Sultan of Brunei for the transfer of the latter's right of possession of the district from Papar on the north-west coast to the eastern limit of the island, together with certain islands adjacent. On the same day a similar agreement was entered into with the Pangerang Tumonggong—the Sultan's heir—for the cession of the districts of the Kimanis and Benoni Rivers, which formed his own private estate. It was not the first time that such a grant had been made. Twelve years before, in 1865, the American Consul in Brunei obtained certain land concessions from the Sultan, which, if not actually co-extensive with the territory acquired by Mr. Dent, at least comprised a very large portion of it. The result was the formation of the American Trading Company of Borneo, and a large number of Chinese having been imported, a settlement was founded on the Kimanis River. The venture was a failure; the Chinese settlement was not long afterwards abandoned, and in 1877 the Americans formally ceded their rights to the new Company.

Much of the land thus granted, however, was also claimed by the Sultan of Sulu. It would have been difficult, if not impossible, to settle

the validity of the title of each claimant, and hence an agreement of a similar character to that made with the Brunei Sultan was entered into with the Sulu potentate, by which, for the sum of £1000 paid annually, he agreed to convey the district to the grantees in fee simple. The annual sum of £3000 was to be paid to the Sultan of Brunei and the Pangerang Tumonggong under the same conditions. A provisional clause inserted at the instance of the British Consul for Borneo stipulated that "the rights and privileges conferred by the grant should never be transferred to any other nation, or company of foreign nationality, without the sanction of our Government being first obtained." These arrangements having been settled and a provisional Company formed, a Royal Charter was applied for. It was granted, and on the 1st November, 1881, the British North Borneo Company, with a nominal capital of £400,000, commenced its existence.

The territory thus acquired occupies the northern extremity of Borneo, and is said to have an area of about 24,000 square miles. From its position it is completely surrounded by the sea except to the south and south-west, and the coast-line, which is extremely irregular, is believed to be over 600 miles in length. There are several most excellent harbours: the Kina River is navigable for a distance of 200 miles by large steam launches; and the great mountain of Borneo, Kina Balu, the height of which is estimated at 13,700 feet, lies within the territory. The Company have five settlements. Silam lies on the east coast and is unimportant; Sandakan, and Kudat in Marudu Bay, the two chief places, are on the north; and Gaya, Papar, and Kimanis, all of which are of no great size, are situated on the west coast.

To those who look for the low, mangrove-lined shores that are a leading characteristic of many parts of Borneo, and, indeed, of most tropical countries, the first view of the entrance of Sandakan Bay is, to a certain extent, an agreeable disappointment. Mangrove swamps, indeed, there are in abundance, but they keep pleasantly in the background, and on rounding the north-west headland the fine red sandstone bluffs of Pulo Balhalla greet the eye in their stead. They rise almost perpendicularly to a height of six hundred feet or more, and in the far recesses of the many caves with which they are pierced the so-called "Edible Swallow" (*Collocalia linchii*) constructs the nests, which are destined in due season to be gathered by strong-headed natives, and to serve as dainties for the table of some rich Chinese. The little township of Elopura soon comes into view, placed on the north-west shore of the bay, but long before the anchor is down one has time to realise the fact that Sandakan is a magnificent harbour,—the best, perhaps, in the whole of Borneo. With an entrance a mile in width, it has a length of sixteen and a varying breadth of from three to ten miles. One eighth of the bay only has been fully charted,—that portion nearest the entrance,

but a running survey of the remainder shows that there is an abundant depth of water to its very head. Once well within it the favourable impression given by the cliffs of Balhalla Island is somewhat dissipated. The low, flat land stretches in every direction, nearly as far as the eye can reach, unbroken save by the little island of Bai and the hills which form the immediate background of the settlement, and though several rivers are said to debouch into the bay, there is no ocular evidence of any one of them.

Elopura, I believe, means "the beautiful city." There is a wealth of Oriental imagery in many of these Sanskrit words; a luxuriance of poetical idea which the unromantic Westerner occasionally finds a little startling. The most imaginative of travellers would hardly have hit upon the name as an appropriate one. The township, which, by the more sanguine of its inhabitants was even at the time of our visit regarded as the possible future capital, presents itself as an uninteresting forest-clearing about a mile in length, traversed by yellow paths whose colour is derived from the soft sandstone which appears commonly to form the soil in this neighbourhood. The tree-trunks lay where they had been felled, but where the ground had been cleared it was carpeted with bright green but coarse grass. In front, built entirely on piles, half over the sea and half over fetid black mud, is the native town, composed of Malay and Chinese huts. The former race comprises individuals of many nations,—Borneans, Sulus, true Malays from the Straits Settlements, and "Manila men," as the natives of the Philippines are called—but of all these the Sulus were, at the period of our visit, by far the most numerous, though compared with the Chinese they were in the minority. The huts are mere sheds built with mats or "attaps" of Nipa leaves, and the streets between, if streets they can be called, are palm-stem gangways, elevated on piles to a height of six or eight feet above the water.

We disembarked—I had almost said landed—on one of these erections late in the afternoon of April 3rd, and made our way landwards with a certain sense of insecurity as the pliant palm-laths bent beneath our feet. Clattering over these somewhat rickety roads through a motley crowd of natives congregated around the little booths where vendors of dried fish, bananas, and Chinese small goods were driving a brisk trade, it seemed some time before we reached *terra firma*, for the houses are built for a considerable distance over the water, and the odours that arose from the sea of black mud beneath us were none of the pleasantest. We found some friends whom we had previously met in Singapore, and it was not long before we had exhausted all the sights of Elopura. Behind the native town the hills rise steeply to the height of a couple of hundred feet or more, and were being cleared of the jungle as fast as possible, the sound of the axe and the crash of falling

ELOPURA, SANDAKAN BAY, BRITISH NORTH BORNEO.

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timber being audible in all directions. The houses of the Europeans were placed upon the hill-side. They were built, like those of the natives, of palm-leaf mats, and were about ten or twelve in number. "Government House," which served the purpose of a dâk-bungalow, or rest-house, was a more pretentious building, but the palm was borne by the store of the Sabah Mutual Supply Association, gay with tins of potted meats within, and proud in the consciousness of its corrugated zinc roof. Chinamen were trotting about in every direction with an *affairé* air. The town was neither picturesque nor beautiful, and even for a new settlement was as untidy as any I have ever seen; but it was most certainly busy.[1]

Thanks to the exertions of the late Sir Walter Medhurst, the Immigration Commissioner in Hongkong, Chinese from that city and Singapore reached the new country in great numbers. At the beginning of 1882 the population of Elopura was not more than 2000. In April of the following year it had reached 5000. Up to that date the passage-money of the coolies had either been paid or advanced, but this practice was afterwards discontinued. Labour, nevertheless, was extremely high. The lowest price at which it was obtainable was 33 cents (one shilling and fourpence) per diem, but 50 cents was more usual. Such wages were of course well-nigh prohibitive of remunerative farming, and though they have possibly decreased since, it is in the highest degree improbable that labour will ever be obtainable at as low a figure as it is in Ceylon, or even anything approaching it. Yet there is no lack of steam communication. A subsidised steamer arrives every three weeks from Hongkong, and the Singapore mail is due at intervals of about eight days.

The rapid growth of Elopura reminds a traveller to whom "rushes" are not unfamiliar of other townships he has seen spring up, even more quickly, in a "diamondiferous" or gold-bearing locality. There the interest not unnaturally centres in the precious stone or metal which has brought men to the place. In British North Borneo the great fertility of the soil was the nominal inducement. Yet it was singular to note how little people seemed to trouble themselves about it, and how slow they were to profit by the advantages which, we were told, surrounded them on all sides. On our arrival little or no actual planting had been commenced, but about a mile behind the town a large forest-clearing was being made. Some sugar-cane had been tried, but the soil was unsuited for its growth, the canes being small and scrubby, and with very short internodes. Lanook (*Musa textilis*) was doing fairly well, but the few oranges and pummaloes that had been tried were covered with blight. The soil appeared poor, and the

[1] In April, 1886, almost the whole of the lower town was destroyed by fire.

judicious planting (in a metaphorical sense) of a town lot must, no doubt, have been a far more profitable employment.

At Silam, in Darvel Bay, the best land in Sabah is said to be met with. Thirty acres were cleared shortly after the establishment of the Company, and planted experimentally with tea, coffee, cinchona, cacao, sugar, and other products. Of these coffee and sugar seem to have done well, far better indeed than the four Europeans who were looking after the plantation. As we arrived in Sandakan we found the doctor starting to their assistance, intelligence having just arrived that they were all down with fever. We did not visit the settlement, and had consequently no opportunity of judging of its success, but although the cultivation of tobacco was recommended, that of cinchona and blue-gum trees would also appear to be not inadvisable.

We had heard a good deal of the rivers flowing into Sandakan Bay, and of the fertility of the soil that formed their banks. On the 11th of April we accordingly started for the Sigaliud in a heavy steam launch drawing nearly seven feet of water aft, provisioned for a four or five days' absence. The river is a large one, and debouching at the head of the bay is nearly fifteen miles distant from Elopura. With the *Marchesa's* cutter and skiff in tow we reached the mouth in a couple of hours' steaming, passing a picturesque native village at the entrance. There is a depth of sixteen feet on the bar at low water, and the stream is navigable for barges and such craft for about thirty miles from the mouth. There is a striking and wearisome monotony in all these Bornean rivers. At first nothing is to be seen but mangroves. The actual breadth of the river it is impossible to guess, for land and water merge imperceptibly into one another behind the thick curtain of dull, lifeless green. Four or five miles are passed thus, and then a stray Nipa palm rises here and there from the hot and muddy stream. It is just as much a water plant as the mangrove, and its huge fronds are not only among the most graceful of tropic forms, but have the additional advantage of utility. From them the "attaps" are made,—the large mats used in the construction of the native huts. The young and tender leaves supply the place of cigarette papers, and the heart of the palm, like that of many others in this part of the world, makes an excellent "cabbage," which either raw or dressed, is by no means to be despised even by the most fastidious. Soon the dreary-looking mangrove swamps become almost entirely replaced by this tree, and ere long a glimpse of the bank is caught, and the huge forest-trees close in on either hand, forming walls a couple of hundred feet in height, between which the stagnant-looking river is dwarfed almost to a ditch. The heat increases, and but few signs of animal-life are evident. The inevitable Whimbrel of course is to be found, and the Common Sandpiper (*T. hypoleucus*) flies past with its clear note of alarm. Were the

traveller to confine himself to the lower portion of these rivers, he would find the exploration of one of them quite sufficient for a sample.

We steamed steadily up stream for five and twenty miles or more without incident, except on one occasion, when an unusually sharp bend proved too much for the steering capabilities of the *Vigilant*, and we found ourselves crashing full tilt into the jungle. It was the first time I had ever attempted to navigate a forest with a steam launch,

BULUDUPI HUTS, SIGALIUD RIVER.

and our utter helplessness as the heavy craft was brought up all standing among the Nipas was rather laughable. However, we at length managed to disentangle ourselves, and once more proceeded on our course. No signs of human habitation or clearings were to be seen until we reached our destination—the highest point that the 7-foot draught of the *Vigilant* permitted her to attain. Here we found a couple of huts, which were inhabited by some natives of the Buludupi tribe, and made fast our craft a short distance farther up stream. It was high water at the time, but as we were assured that there was only a rise and fall of eighteen inches, we did not regard our proximity to the bank with any

apprehension, and left in the cutter for a cruise in search of natural history and photographic objects.

On our return we found that the captain and owner of our vessel, as well as others who had accompanied him, was fast becoming hilarious. We had hardly finished dinner before it became evident that the *Vigilant* had taken the ground—a proceeding that was in no way necessary, as we had carried three fathoms of water the greater part of the run up, and had still a depth of twelve or fourteen feet in mid-stream. It was soon apparent that the affair might become serious for the owner of the craft, as she careened over more and more, her list being unfortunately towards the centre of the river. If the tide only fell low enough her fate was merely a matter of time, for the banks sloped at an angle of many degrees, and while there was six feet of water on one side of the vessel, we found six inches only on the other. Soon everything began falling over to leeward, and in a few minutes the cook's galley, live coals and all, went across the deck with a crash. The *impedimenta* of our party lay in a confused pile mixed up with chairs and the *débris* of our dinner, and we set to work to rescue what we could with all despatch,—an affair of some difficulty, as we were no longer able to stand upon the deck. Meanwhile the gallant captain was engaged in a full-flavoured altercation with the mate and crew concerning the making fast of certain hawsers to the trees, which we had advised him to do some time before. From our point of view, the incident was ludicrous enough as we crawled about the deck on all fours in search of our property, but judging from the expletive richness of the captain's language, the comic element of the affair was evidently lost upon him. At length, however, the tide turned, and with the young flood all doubts were at an end. Before daylight the *Vigilant* was once more on an even keel, and we were all comfortably turned in.

A dense, sluggish mist hung over the river in the early morning, and did not entirely clear off until nine o'clock. It reminded one unpleasantly of Africa, and was immediately suggestive of quinine. Two of our party started at once for Batang Ipil,—the farthest point to which the Sigaliud is practicable for small boats,—in the hopes of obtaining wild cattle, which were said to be numerous in the neighbourhood. As the sun got higher the heat became tremendous, and at mid-day, finding it almost insupportable ashore, I returned from a collecting trip in the jungle, hoping to find a breath of air in mid-stream. The cabin temperature was 95° Fahr., but it was distinctly cooler. What heat of this kind is, in a damp climate like that of Borneo, can only be realised by those who have experienced it. The far higher thermometric temperatures in dry climates, such as Australia and Africa, are child's play in comparison.

In the afternoon I explored a small tributary stream which joined the Sigaliud a mile or two above the Buludupi huts. It is a mistake to suppose that all tropical rivers are alike, and, as I floated gently up stream on a rising tide, I could not help feeling how much more to my taste were others I had seen in other parts of the world, in spite of the undoubted beauty of the jungle and the enormous height of the trees. The stream, forty or fifty feet in width, looked a mere runlet beneath the huge forest giants rising so abruptly from its banks. Towering up as clean, straight, branchless trunks, often for a hundred and fifty feet or more, their tops were merged in those of others by the dense masses of creeper which had sprung from branch to branch and overwhelmed them. The roots of these monsters of the vegetable world are strengthened in their hold by buttresses of corresponding size, smooth and flat as though constructed by the hand of man, and supporting the stem for a distance of perhaps thirty feet from the ground. Doubtless also the creepers which bind the trees together at their summits help in no small degree as a support, but in this region there are few high winds, and typhoons are non-existent. High up, in the forks of the branches dozens of yards above our heads, are thick dark masses which the glasses reveal as clumps of the Birds'-nest Fern (*Neottopteris*), or the still more curious *Platycerium* or Elk's Horn, whose upper fronds, deeply dentate, cling to the trunk with their base, from which the long, seaweed-like, fertile fronds hang pendulous. Orchids, too, there are in abundance, could we only see them, but their flowers are too small, or, like the Grammatophyllum, too dull in colour for us to distinguish them with ease. Not a breath of air stirs leaf or water, and the oily, pea-soup-coloured river with its oozy banks looks untempting enough beneath a sun whose heat seems to penetrate to one's very marrow. Few visible signs of life appear to break the monotony of the scene, save when a flash of vivid cobalt blue tells us that an *Irena* has crossed the stream, or a party of monkeys swing chattering from bough to bough. But if there is rest for the eye there is little or none for the ear. The forest is alive with sound, from the dull, hoarse cry of the hornbill and the slow *swish*, *swish* of its powerful wings, to the loud booming note of the large Fruit-eating Pigeons (*Carpophaga*) and the ceaseless and ear-piercing *whir-r-r* of thousands of cicadas. It is tropical nature indeed, but in its least pleasing aspect, and, lying sweltering between the walls of vegetation that shut him in on either hand, almost too inert to lift the gun to his shoulder, the traveller longs for a less vehement nature,—for the restfulness of an English

> . . . "hidden brook
> In the leafy month of June
> That to the sleeping woods all night
> Singeth a quiet tune."

Coolness of a comparative sort comes with the setting sun, and the nights are more pleasant with a light blanket than without, but the heat we experienced in these Bornean rivers during the day was almost as trying as that of New Guinea or West Africa.

The following morning we started early upon a photographic tour. The Buludupi huts were our first object, but we tried in vain for a long time to get a photograph of one of the dug-out canoes of these people, which was manned by four little heathens in a state of nature. Some of the children had their heads completely shaved, but in others a small tuft of hair was allowed to grow over the forehead, after the manner of Chinese small boys. I do not know whether this custom is general among any of the interior tribes, but the fact seems interesting when the connection between China and Borneo in bygone times is borne in mind.[1] Proceeding up stream for some distance we noticed traces of an old footpath upon the bank, and on landing and following it into the forest, we came upon a clearing which was evidently a burial-ground of the Buludupis. It contained about a dozen graves. Oblong pieces of wood with a narrow mortice cut longitudinally through them lay upon the slightly-raised mounds, and at the head was a small wooden post, roughly carved after the Malay fashion. By the side of several graves was placed a sort of rude bier, upon which the corpse had evidently been carried to its last resting-place, and here and there a miniature bamboo flagstaff was planted, from the top of which still hung a few tattered rags of linen.

The scene was beautiful as well as quaint, for the ground had been liberally planted with crotons and dracænas, whose coloured leaves stood out in bold relief against the heavy dark green of the forest around. Close by, a few arecas and an old coco-palm revealed the age of the clearing. A few years ago, when the pirate fleets from the Sulu Islands ravaged the countries far and near, the natives lived far up the rivers, where they were safer from attack, better able to defend themselves, and more free to grow their crops. Now that security is greater, many of the clearings are deserted, and have become rapidly overgrown.

The Buludupis have a curious account of their origin. An old woman—but of what nation history does not inform us—one day instructed her daughter to light a fire. Again and again the young woman tried; again and again she failed. At length, wearied by her non-success, and by the abuse of her mamma, who, as far as it is possible to judge of historical personages, seems to have been a woman of violent temper, she exclaimed, "The Fire Fiend may take me, if he will only let me get this alight." No sooner had she spoken than her wish was gratified, but at the same instant she disappeared from view. Time

[1] Many instances of this connection might be adduced in Bornean nomenclature, such as *Kina*-balu (Chinese widow), *Kina*-batangan (Chinese river), etc. etc.

passed by, and at length she returned from the lower regions, and interesting as must have been her adventures, of which, by the way, history gives us no account, they were not more so than her condition. In a few days she gave birth to a son, who was the progenitor of the Buludupi tribe.

We continued our voyage up stream after having taken photographs of the burial-ground, and constantly passed the remains of old clearings.

FOREST-CLEARING AND LARGE TREE NEAR SANDAKAN.

The river had become much narrower, and the forest-trees were larger than I ever recollected seeing them in any other part of the world. The heat was perhaps slightly more bearable than on the preceding day, but a succession of tremendously heavy rain-showers drenched us to the skin. Such weather is always most unfavourable to the naturalist, not only as regards his health and comfort, but his work also. Beasts, birds, and beetles alike take shelter from the pitiless rain, and photography becomes an impossibility. Between the showers, however, we managed to obtain a few birds, conspicuous among which was the exquisite *Irena*,—the whole of its upper surface of the most vivid

cobalt blue. The feathers of this bird are sent from Borneo to Canton, where the Chinese use them for making a very effective blue enamel in articles of jewellery. Hanging back downwards in all sorts of attitudes, searching the blossoms of the flowering trees for insects, the little so-called Spider-hunters (*Arachnothera*) were common enough, but difficult to shoot, owing to the great height of the trees they frequented. They are remarkable for the great size of the beak, which in some species is nearly as long as the body. This abnormal development is no doubt of the greatest assistance to them in searching the deep corollas for their insect prey. The Racquet-tailed Drongo-shrike (*D. brachyphorus*), a striking, but tolerably common object in the forests of Borneo, also fell to my gun. In many of the drongos the two outer tail feathers show a greater or less amount of corkscrew twist, but in this species the shaft is prolonged to a length of twelve or fourteen inches, and is perfectly bare except at the end, which presents a small, curved spatula of a blue-black colour.

The soil along the banks of the Sigaliud was, as might be expected, of far better quality than that in the neighbourhood of Elopura. As we floated back to the *Vigilant* its many advantages for sugar-raising were being expatiated on at length by a land-prospector who formed one of our party. The moment chosen, however, was not a very lucky one for the advocate of river-side planting. At that instant we happened to be passing beneath an overhanging tree, in the branches of which, twenty feet or more above our heads, an irrefutable argument in the shape of a lump of grass and driftwood had stuck. The country round is for the most part low and flat, and of the effect of the floods in the rainy season we had afterwards a good opportunity of judging during our visit to the Papar-Kimanis district. Towards evening the rest of our party returned from Batang Ipil, having been unsuccessful in the way of sport, although much spoor had been seen. The following morning we returned to Elopura.

The export trade of the Sandakan district at the time of our visit lay entirely in the natural products of the country. Rattan-canes, gutta, dammar, camphor, sharks'-fin, *bêche de mer*, and pearl-shells were the chief, and the supply of all these in the forests and seas of the Company's territory is, with the exception perhaps of gutta, practically inexhaustible. But of all the exports the edible birds' nests are by far the most important. The Gomanton Hill, in the neighbourhood of the Sapugaya River, alone produces enormous quantities,—to the annual value, indeed, of over £5000. The caves of Bodmadai in Darvel Bay are reported to be nearly as valuable, and there are eight or ten others which are for the most part either indifferently worked or as yet unexplored. The nests are divided, according to their colour and purity, into three qualities, *puti*, *manas*, and *itam* (white, medium,

and black), which at a low estimate are severally worth about eleven hundred dollars, two hundred dollars, and ninety dollars per *picul* of one hundred and thirty-three pounds. That the value of this article of commerce is considerable may be judged from the fact that for the half-year ending June, 1882, the duties on birds' nests exported from Elopura at five per cent amounted to a sum of eleven hundred dollars. On the 1st of January, 1883, the duty was raised to ten per cent.

The "Birds'-nest Swallow" is essentially a gregarious bird, roosting and building in huge caves which it shares with vast quantities of bats. It does not invariably breed thus, for I have seen a couple of nests built close together on the face of a small cliff barely ten feet from the sea-beach, exposed to the full glare of daylight. Such instances, however, are exceptional. In the vast majority of cases the nests are placed on the sides and roofs of caves where the light is generally dim, and often entirely absent. We were unable to visit the Gomanton Hill as we had intended, but I am indebted to my friend Mr. Bampfylde —one of the few Europeans who has explored it—for the following account of the method of collecting:—

"The nests being situated in such awkward positions, at a great height, much skill and ingenuity is employed, and only skilled collectors can collect. The rule is to have one head-collector (*Tukang*) for each cave, with three or four coolie collectors to assist him, though all the caves cannot require so many, and I fancy, with a proper division of labour, ten head-men with fifty coolies would be sufficient to collect at Gomanton. The higher the nests are situated the better they are, being drier and freer from dampness. For taking the nests situated lower down, and for getting those out of arm's-reach, a very long bamboo, spiked, and with a candle near the spiked end, is used; with this they can see and detach the nests. Those situated higher up, and consequently the most valuable, being the majority of them situated in such dizzy heights (up to 600 feet), are taken by means of rattans or rattan-ladders lowered down between holes and small outlets, some of them too small to permit a man to pass through, of which there are many. Where a man can pass through, they employ a rattan or ladder long enough to reach down to the nests, otherwise a ladder long enough to reach the ground is let down, so that the collector can ascend. By using sticks and bamboos inserted in crevices and holes they can, in a most extraordinary manner, work their way along the faces of these precipices to a required point, and in one or two places I have seen stages fixed right on to the roof, where it would seem utterly impossible for a man to work his way. One I noted about 300 feet from the ground, with no outlet close to it, and situated equidistant from the walls, right in the middle of the roof, to get to which, by means of rigging a stage or up the walls, would seem to be impossible.

"Long bamboos with steps up them, and secured by rattan stays, with

sitting stages, are also employed to work from the ground. The caves can be worked equally as well by night as by day, without any fear of scaring the birds.

"The natives collect in a slovenly manner, and not always in the proper season. Great care should always be taken after detaching the nests to sweep the various lodgments so as to remove all mess and feathers, which would otherwise adhere to the next lot of nests, and deteriorate them in value. This is invariably done by the Sarawak Land Dyaks, and owing to superior knowledge on the part of the collectors, and more careful management, the nests from the caves on the Sarawak River are very valuable, though the caves, and consequently the amounts produced, are greatly inferior to those of Gomanton.

"For some years back there appear to have been only two seasons for collecting, viz. the *Papas* and *Kapala;* one about March, and the other about two months later. I am, however, informed, on the authority of experienced collectors and others, that the most remunerative way is to divide the year into four seasons, as formerly done. No fixed date can be given for these seasons, and the gathering depends on the laying of the eggs, and when this commences the nests must be taken. The natives say that the birds will lay four times a year if four collections are made, but if there are only two collections they lay twice only. The first three seasons always produce white nests, the last only *manas* and *itam* (the medium and black qualities), but it must be worked to insure a good harvest for the next coming *Papas* season.

"By these means a larger quantity and a far finer quality of nests are obtained than by dividing the year into two seasons only, when the birds are allowed to add and add on to their old nests,—as they will invariably do,—which rapidly deteriorate, becoming dirty and of low value. As the nests are taken only when the eggs are laid, a danger of over-collecting might be apprehended, but I am assured no such danger exists, as the birds carry on the breed in nooks and crannies inaccessible to the collectors."

The trade of Sandakan, as well as of the other ports of British North Borneo, appears to be almost entirely in the hands of the Chinese. The following figures represent the value of the exports and imports of Elopura from 1881 to 1884 inclusive:—

	Imports.	Exports.
1881	$160,658	$145,443
1882	269,597	133,665
1883	428,919	159,127
1884	377,885	184,173

The sport to be obtained in North Borneo is not such as would repay a visit. Elephant and rhinoceros are both to be found, as are also the tapir and the Malayan *Rusa*, but for many reasons the sportman's bag is not likely to be a heavy one. The elephant, as

far as is known, is confined to this, the north-east promontory of the island, and is believed to have been introduced by man. It is now chiefly to be found in the Darvel Bay district. Gaur are said to exist, and there are, no doubt, great quantities of pig. But it is worthy of note that two English officers, both of them well-known sportsmen, who devoted four months to big-game shooting in British North Borneo in 1883, returned to Hongkong entirely unsuccessful. Game, no doubt, there is, but it is quite another thing to shoot it. The climate is by no means a healthy one, and there is considerable difficulty in obtaining transport and provisions. There are no trained shikaris, for hunting does not seem to be taken up as a regular pursuit by any of the natives, as is the case in India and Africa. If big-game shooting in this part of the world be contemplated, there are no advantages in Borneo which Java, Sumatra, or the Malay Peninsula could not show, while for variety of game, easy accessibility, and comfort in travel, the latter countries are to be preferred.

During our visit to the new colony we made no attempt at any larger game than pig and deer, preferring the acquisition of some knowledge of the various settlements and their prospects to the shadowy possibilities of an elephant. Libarran Island, which lies some twenty miles or more to the north of Sandakan Bay, is believed to be, and no doubt really is, full of deer, but an excursion we made thither in search of them was unsuccessful, owing chiefly to inefficient beating, and we had to be content with the inspection of their numerous tracks. Ornithologically speaking, however, the visit was not unproductive, and we added several species to our collections. Among them was an exquisite little black Sun-bird (*Chalcostetha insignis*), its head and throat glittering with metallic emerald and ruby. It is a not uncommon species, but during the whole of our visit to North Borneo we never met with it elsewhere.

We left Elopura for the second time on the 22nd of May, in company with H.M.S. *Fly*, and proceeded to Kudat, which at the time of our visit was the seat of Government and the headquarters of the Company. The present capital is Elopura, in which place, ever since its foundation, trade has centred. Kudat is situated in a small harbour on the western shore of Marudu Bay, and is, roughly speaking, about one hundred and fifty miles from Sandakan by sea. Between the two settlements lies the difficult Mallawallé Channel, a network of reefs and shoals which is only navigable by day, and even then only with great care. Kudat has, therefore, the double advantage of greater proximity to Hongkong and Singapore, and absence of risks in navigation. The latter can certainly be avoided by taking a more northerly passage, but only at the expense of several hours. The visitor's first impression of the township is a favourable one. Its situation is far

prettier than that of Elopura; it is neater and cleaner, and the bungalows, instead of being constructed with palm-leaf "attaps," have here their walls of wood. There are walks and woodland roads in many directions; there is a splendid sea-beach extending for miles, and, wonderful to relate, we actually found some attempts at gardening. Happily, too,—though doubtless unfortunately, from the colonial point of view—there is a paucity of Chinese population. In point of size Kudat is not great. It boasts of little more than a thousand inhabitants, and its trade is, or rather was,—for in speaking of a new country it is at least polite to put these facts in the past tense,—comparatively insignificant. Bad water and alleged unhealthiness have made the settlement an unpopular one with the Chinese, and though the former evil has been remedied, and the climate is at least no worse than that of Elopura, the latter town has remained the favourite in the eye of the Celestial, and, in consequence, much the same feeling exists between the inhabitants of the two places as that between Sydney and Melbourne, or the "Eastern" and "Western" districts in South Africa.

We celebrated the Queen's birthday in the most approved colonial fashion. H.M.S. *Fly* and the yacht were gaily dressed; the royal standard was saluted from "The Battery;" a cricket match (the Marchesans and Borneans *v.* the Flies) was played; a tug-of-war between the officers and crew of the two ships contested, and our kind host, Sir Walter Medhurst, then Acting Governor, entertained us at tiffin. Loyalty, public spirit—and the temperature—were at fever heat.

The *Fly's* visit to Marudu Bay was on particular business. Just two months previously a Chinaman had accidentally shot a Bajau woman at Bongon, a small village at the head of the bay. He was immediately seized by the natives, and though intelligence of the disturbance was at once sent to Kudat, the wretched man was despatched with kris and spear. A small body of Sikh police was sent to the spot to arrest the murderers, but the latter refused to give themselves up, and attacked the Sikhs unexpectedly. In the skirmish that ensued three Bajaus and two of the police were killed, and both parties withdrew. Ten days later a larger force of Sikhs was sent to the village, and a fine of $100 imposed, which was eventually paid. It was with a view of ascertaining the state of affairs that the *Fly*—with Mr. Gueritz, Resident of Kudat, on board—sailed for Bongon on the 25th of May, in company with the *Marchesa*. We anchored nearly three miles from the mouth of the river on which the village is placed, for the bay is here very shallow, and the rise and fall of tide considerable. It is, indeed, facetiously related that early one morning one of the watch of a certain gun-boat reported that the "anchor was in

sight two points on the port bow on a mud-bank." We proceeded in the cutter and steam launch to the village, and were well received, the natives flying little white flags on their huts in token of submission; and from what we learnt there was no doubt that the disturbance had no political significance whatever. In the eyes of these natives the taking of a human life is a little thing. When they realise the fact that each Sikh policeman brought to bag costs fifty dollars, it is to be hoped that they may relinquish the sport.

The pleasant jungle walks and long stretches of beach fringed with Cycas and Casuarina proved a source of great enjoyment to us during our week's stay at Kudat, and we added considerably to our collections. In one of my morning rambles I came across a small bird (*Mixornis bornensis*) fast entangled in the web of a spider of the genus *Nephila.* These structures in the tropical forests of this part of the world are often of large size and great strength, but I was astonished to find that they were sufficiently strong to capture a bird which, in this instance, was as large as a goldfinch. For a moment my feelings of humanity overpowered me, and I released the captive, but directly afterwards I regretted that I had done so, as the conclusion of the drama might have been of interest. The spider, though evidently somewhat deterred by his unusually large capture and the violent shakings of the web, showed no intention of flight, and quietly watched the issue of events close by. I am not aware that this genus is avivorous, but the huge *Mygale* is supposed to be. One of these is a common species in Borneo, living in holes in banks. The entrance is perfectly circular and about two inches in diameter, and the smooth tunnel leads backwards to a small chamber eighteen inches or more from the mouth. This creature is of enormous size—the body as much as three inches long, by an inch in width, and it is no doubt quite strong enough to cope, not merely with a callow nestling, but even with an adult bird of small size.

A day or two after our Bongon expedition we became the fortunate possessors of the best pet that ever took up his quarters on board the *Marchesa.* He was a present from Mr. Gueritz, the Resident of Kudat, who received him from an English-speaking Malay in the Company's service, accompanied by the following note announcing his arrival:—

"My bast Compliments to yau. I was sent yau 27 faowels and One while man. Plice Recived By the Bearar and Plice Ped the Bord Hayar, and I was sick. A. C. PITCHY."

The "while man," I need scarcely say, was an orang-utan—a formidable-looking beast enclosed in a large wooden cage. We had at first the greatest respect for him, and he was fed through the bars with all possible precaution. One day, however, he managed to escape, and

we suddenly discovered that he was of the most harmless and tractable disposition. From that moment "Bongon" became the pet of the ship, and was spoilt alike by the crew and ourselves. Indirectly this was, no doubt, the cause of his death,—a much-deplored event that took place some months later on the coast of Celebes.

We left Kudat May 30th. The northern part of Borneo is by no means plentifully supplied with good water, and we tried in vain to fill our tanks in the neighbourhood of Cape Sampanmangio. We were equally unsuccessful in our search along the coast beyond, and as our supply was nearly finished we decided to return eastwards and try

"BONGON."

Banguey Island. It is the most northern possession of the Company, and but little is as yet known of it, though Balembangan—an island in close proximity to it—was in the middle of the last century an English settlement. We anchored a little to the south of Banguey Peak—a conspicuous, sharp cone of nearly 2000 feet, which is believed to be an extinct volcano—and were fortunate enough to hit off the entrance of a small river, the existence of which, though not discovered by Belcher and other explorers of these seas, had been made known to us by some of the officers of the North Borneo Company. The mouth was completely hidden from the ship by a long strip of sand running out from the left bank, and on entering we found ourselves surrounded by pretty scenery, which was the more striking from the absence of mangroves. We were able to row up stream for nearly a mile, when we

came to a sudden bend where the stream ran briskly over pebbly shallows. The water was clear and good, and we at once began filling the lifeboat and cutter. The knowledge of this stream would be most useful to those cruising off this part of the Bornean coast, for to the south-west there are few, if any, places where good water can be obtained.

The contrast between the island and the coast we had just left—for the mainland of Borneo is only eight miles distant—was rather striking. Banguey Peak is almost certainly volcanic, although we did not examine the crater which is said by the natives to exist at its summit. Near the entrance of the river is a cliff of red granitic rock, and pebbles of mica-schist and quartz were abundant in the stream, with large lumps of "pudding stone" conglomerate. Mr. Dalrymple, who had visited this spot in the preceding month and had explored some distance inland, found micaceous schist, talcose and gneiss formations, and red and blue clay slates. The vegetation also was a little unfamiliar, and I noticed two species of Pandanus which I had not seen before. Along the river there were no signs of human life. The island indeed is but thinly peopled. A few Dusuns—about two or three hundred, we were told—had migrated thither from the mainland, and to the south some Bajaus, the roving sea-gipsies of Borneo, trade with them for bees' wax, which appears to be very plentiful. The season for gathering it begins in August, and, according to Mr. Dalrymple, each man reckons on collecting about a *picul* (133 lbs.), for which the Bajaus pay barter to the nominal value of £5.

We were fortunate enough to have Mr. Gueritz with us, and guided by one of his men—a Dusun Dyak who was himself an old inhabitant of the island—we ascended the river for some distance, and striking inland, followed a narrow jungle path for a mile or more. Birds were few, and all those we noticed or that fell to our guns were species that were familiar to us in Borneo, but flowering trees and a beautiful white jessamine seemed abundant. We arrived at length at a tiny hamlet, but the male portion of the population were away, and five Dyak women were the only inhabitants. They did not appear at all afraid of us, and brought water to us as we ate our tiffin. Some attempts at cultivation had been made near the huts, and the soil here—as indeed elsewhere upon the island—appeared tolerably rich. Some of the sugar-cane was good and heavy, and tobacco also was doing well, but the food of these people is chiefly fish and rice obtained from the Bajaus. The only cereal grown is maize.

Not many months after our visit to Banguey the "German Borneo Company" took up 10,000 acres upon the island, with the intention of growing tobacco. The manager was a German familiar with tobacco-cultivation in Sumatra, where, as I have already mentioned, the "wrappers" of many of the good Havana cigars are grown. Labour

was imported, and the prospects appearing excellent, they claimed the option of selecting another 10,000 acres. Disturbances with the natives ensued, however, and in a fracas with the coolies two of the latter were shot by the whites. Whether the venture was given up or not I do not know, but the German Borneo Company appear to have since transferred their attentions to Sulu Island, where they have obtained land grants from the Spanish, and, in September, 1885,—as stated on a former page—they had commenced tobacco-growing with every prospect of success.

We left a few little presents with our hostesses, and struck westwards through the jungle to the sea. At the edge of the beach spoor of wild pig, and of, probably, the little muntjac, was abundant. During our walk we were attracted by dismal howlings, and on searching in the forest came across a small puppy who had lost his way. We carried him off to add to the number of our pets, and "Banguey," as he was afterwards named, exchanged the precarious existence of a life among the Dyaks for the *cercle* of Newfoundlands and Dachshunds on the *Marchesa*. With his queer appearance and the absurd gravity of his manner he soon became a favourite, and would play sadly with the parrots and monkeys, with whom he seemed to have more in common than his own kind. But he was a Bohemian and *vaurien* by birth, and the *amari aliquid* doubtless lingered even in the flesh-pots of civilisation, for whenever he was given "shore-leave" he immediately did his best to lose himself in the jungle.

From the shore the magnificent outline of Kina Balu, the great mountain of Borneo, was visible to the S.S.W., eighty miles away, but our attention and interest was directed to a nearer object—the island of Balembangan—where, a hundred years before, the inhabitants of the East India Company's settlement had been massacred almost to a man. In those days neither Singapore, Malacca, nor Penang was English, and it was considered above all things important to establish posts in the neighbourhood of China. Accordingly, when, in the middle of the last century, the Sultan of Sulu was found imprisoned in Manila on the occupation of that city by the English, Admiral Drake succeeded in obtaining from him the cession of Balembangan as a reward for his release. A post was established there in 1763, which acted in some degree as a check upon the pirates with which these seas at that time swarmed. The garrison at first numbered nearly four hundred men, composed of Sepoys and Europeans, in addition to Bugis traders and others, but at the time of the massacre in 1775 the climate had told so severely on the inhabitants of the little settlement that only seventy-five infantry and twenty-eight gunners were left to defend it. The position was a tolerably strong one, but the guns all pointed seawards, and in rear the fort was but little protected.

The Spanish were at this time intriguing against the English in Sulu, where opinion seems to have been divided among the Datus, some being in favour of the English while others wished to expel them. The Datu Tenteng, together with his cousin the Datu Dakula, belonged to the latter party, and as much with the hope of obtaining a heavy booty as from any political reason, determined on attacking the English. His force consisted of three hundred men, most of whom were Sulu and Illanun pirates. The sequel of the story is best given in the words of a Spanish historian, which I extract from Belcher's "Voyage of the *Samarang*":—

"Tenteng and his people knew that it would be easy to attack the battery from the forest in rear, where his people could unite and hide themselves, and thus they took advantage of this want of care of the English, who had neglected to defend that side, not dreaming of an attack from a point from whence they did not expect an enemy. In the meantime those at Banguey exerted themselves, transporting the people across the sea to the woods of Balambangan, and without being discovered by the English. The natives had only three small boats, each of which would scarcely convey seven persons, but these boats, after many trips, succeeded in transporting all the people to Balambangan, disembarking them on the opposite side of the island, where the English were established, and in this manner they approached silently, concealing themselves in the wood immediately behind the fort.

"The English little dreamed of what was about to happen, and the officers slept profoundly, having enjoyed themselves at a fête given the day and night preceding in celebration of the Governor's birthday.

"At dawn on the 5th of March, 1775, they formed in three divisions, attacked and burned simultaneously the Governor's house, fort, and barracks; shouts and shrieks on both sides were dreadful, those who died from wounds, as well as those who conquered, seemed to unite in fearful din to celebrate this easy conquest. At that period there were in the port two brigs, two pontoons unladen, and a large bark belonging to the English; the Governor always had a small boat in readiness at the gate of his house; he, with six men, escaped to one of these brigs, and those that were armed with guns opened a brisk cannonade towards the land. The Chief, Dakula, who had made himself master of the fort, returned this fire, and by a chance shot cut away the only cable of one of the brigs, which was anchored nearest the land. The sea-breeze driving her on shore, the crew jumped overboard; some were drowned, and a few gained the other brig, where they met the Governor. A flag of truce was hoisted, but he did not succeed in saving any of those remaining on shore, therefore, making sail, he quitted the smoking ruins of this position, over which he now ceased to have command.

"Tenteng captured forty-five cannon, two hundred and eight cwt. of powder, two hundred and fifty muskets, twenty-two thousand shot, a great deal of iron, lead, tin, and gold in bars, more than fourteen thousand dollars

(Spanish) in coined silver, a large quantity of muslins and other kinds of merchandise, the whole valued at one million Spanish dollars."

The Sultan of Sulu, although nominally repudiating this act, received a great part of the spoil, and no reparation appears to have been exacted by the English. Some little time afterwards the settlement was re-established, but it was again abandoned in 1803. A few overgrown ruins and traces of the old clearings are all that now remain to mark the spot.

We left Banguey behind us, and set our course westward once more for the Abai River. As morning broke Kina Balu defined itself above the mists as a wall of clear dark purple. At sunset the night before it had been dyed a glorious pink. We anchored before mid-day off the mouth of the river, and started shortly afterwards on a little expedition, intending to ascend the stream for some distance, cross the lower spurs of the mountains, and return by the Tampassuk River. It was in reality an official trip. The Tingilan Dyaks had raided on the Tawarrans, and had succeeded in taking two heads, which the North Borneo Company's Government had ordered to be returned, but apparently without much success. Mr. Gueritz was accordingly anxious to meet the Chief of the former tribe and have a *bichara* upon the subject. We started in the cutter and skiff, but at the entrance of the river were told that the two heads had been brought down to the coast about eighteen miles farther to the south-west. We afterwards found that this was true, but Mr. Gueritz thought it better to push on to the Datu's house. We rowed about five or six miles up stream between the usual dreary mangrove-swamps before arriving at Abai village—a place of about 200 inhabitants. Here the scenery changed suddenly, and abrupt hills and grassy slopes met our view, with many cultivated plots of land. Leaving the river here, we started at once for the Datu's house, which we reached before nightfall, drenched to the skin, for the rain had fallen in incessant sheets for some hours. The Chief was away, but we took possession of his house, and having brought some food and a change of clothes with us, we soon made ourselves pretty comfortable on mats spread on the split bamboo flooring. Next morning the rain had cleared off, and we obtained a magnificent view of Kina Balu, which stood out cloudless beyond a sea of hills and valleys to the south-east. We started on our journey without delay, and in a short time reached the summit of a range of hills about 1000 feet in height, whence the view was even grander. The country here was quite different from that in the neighbourhood of Sandakan and Marudu Bay. Instead of the dense, interminable forest, a vast extent of park-like country lay before us, with wide stretches of clearing. On the farther side of the hill we descended into a marshy plain,

KINA BALU FROM ABOVE THE TAMPASSUK RIVER.

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intersected by sluggish, muddy streams of no great size. Here, struggling almost to our waists in mud and water, we lost our way, and our party separated, two eventually gaining the coast on buffaloes and two in canoes. On comparing notes, we came to the conclusion that the former were the preferable means of conveyance. They seemed to go indifferently through either mud or water. The canoes, even in a Bajau's hands, were not equally amphibious.

Next morning it was blowing fresh from the south-west, and as we rolled heavily at our anchorage, we decided on shifting round into Usukan Bay, which was within a mile of us, and afforded perfect shelter. On the following afternoon the Datu came off to us here, accompanied by several very unprepossessing retainers, and the matter of the two heads was settled. In the evening we sailed for Gaya Bay, having said good-bye to Mr. Gueritz, who intended to make the return voyage to Kudat in a native prau. We afterwards heard that he had been picked up by H.M.S. *Magpie*, at that time engaged in a survey of the coast—a fortunate occurrence for him, for he had encountered very bad weather and run short of food.

Gaya is beautifully situated under the western side of Kina Balu, whose height here appears increased by its presenting only its lesser diameter to the view. At the time of our visit the settlement had only been in existence for nine months, and consisted of a couple of rows of "attap" huts, a resident's house perched half way up a steep hill at the back, and a little barrack and battery of three guns. The police department numbered ten men of Dyak and Malay nationality. The settlers had not been idle; for a beautifully-made pier ran out a distance of over three hundred yards from the shore, solidly constructed of the trunks of the Nibong palm. At the end of it there was a depth of four fathoms at low water. The township is placed on the little island of Gaya, which with the mainland, sundry reefs, and another island, forms a fine harbour, even more protected than Sandakan. Native canoes can cross to the mainland in all weathers. The soil in the neighbourhood is not particularly good, and no attempts at planting had been made. What trade existed was chiefly in rattan, bees' wax, dammar, and other natural products. Since then, however, a number of Chinese have immigrated from Singapore, and a sago factory has been established. The population in 1885 had increased to 1000, nearly half of them being Chinese. The place was said to be tolerably healthy. It was at any rate quite as much so as could be expected, for the clearing of jungle and erection of houses must almost inevitably be followed by more or less malarial fever in the tropics. There were a few cases only during our visit, one of which proved fatal.

In places such as these I cannot hope to interest the general reader, unblessed with the love of dry facts and still drier figures. The struggle

between civilisation and Nature in a new country, however interesting to a traveller, is rarely so when put on paper. I confess to a slight predilection in favour of the latter of the two opposing forces, but I will take no unfair advantage by filling my pages with statistics. These can be obtained by consulting the pages of the "China Directory," or the official publications of the North Borneo Company. I should, however, say that from its admirable harbour, and for other reasons, Gaya is likely to prove the most important post on the west coast of the Company's territory.

Some twenty-five and thirty miles farther to the south-west are the settlements of Papar and Kimanis, both situated on rivers of the same name. The coast here is low and flat, and subject to heavy rollers in the north-east monsoon, and, as there are no harbours, both these stations labour under considerable disadvantages, the bars of the rivers being dangerous at that season. Between them lies the Benoni River, winding through a flat plain covered with thick forest. We were anxious to take in water, but though we searched along the coast in this neighbourhood for some miles it was without success,[1] and we resolved on trying the Kimanis River, off the mouth of which we accordingly anchored late one afternoon. A strong breeze was blowing as we started in the lifeboat to row up the river, and we were prepared for a good wetting, if not something worse, in going over the bar, which is rather an awkward one. Fortune favoured us, however, and we crossed without mishap. The river runs between mangroves and Nipa palms for three or four miles, but the scenery is saved from monotony by pretty peeps of distant blue hills. We found the Residency a carefully-kept and really attractive bungalow, inhabited by a solitary European. A neatly-trimmed lawn with flower-beds and sandy paths sloped down to the river, and the verandahs, hung with ferns and orchids, gave an air of comfort and homeliness to the place which was all the more attractive from its having been entirely unexpected. Beyond, on either side of the river, stretch the native huts,—the usual pile-supported buildings of the country. The station had barely recovered from a blow which at one time bade fair to annihilate it altogether. In August, 1882,—some ten months before our visit,—cholera broke out, and in a short time *one half of the entire population had fallen victims.* Before its advent Kimanis numbered just under three hundred souls, and of these one hundred and seventy-seven were attacked, and one hundred and forty-four died. All trade ceased, and the inhabitants could scarcely be got out of their houses. Mr.

[1] The watering-place spoken of in Findlay's "Directory" (Indian Archipelago, 1878, p. 503) is not to be relied on, for the water, like a great deal of that to be found on this part of the coast, is of a rich peaty brown, and though perfectly clear, cannot be used with safety, owing to its liability to cause fever and to turn bad in the tanks.

Dalrymple, the then Resident, and the sole European in the settlement, exerted himself with the greatest courage and devotion in aid of the sufferers, but was eventually obliged to go for assistance to the nearest station. The monsoon was blowing strong at the time, and the native boat capsizing upon the bar of the river, the occupants were nearly drowned. On the passage one of the crew died of cholera. Aid and medicine were at length obtained, and the epidemic shortly afterwards ceased.

Hardly recovered from this calamity, however, Kimanis was visited by yet another. On the night of the 31st of December of the same year a tremendous flood carried away a number of houses, and the neighbouring district of Papar suffered even more severely, over sixty natives being drowned. The crops were either entirely destroyed or greatly injured, and the course of the river so altered that it now debouches by another mouth. Such disasters as these would seem almost sufficient to prove the death-blow of a young settlement, but the station had already begun to recover itself. The population had risen again to nearly two hundred, and trade had re-commenced.

At the time of the formation of the North Borneo Company the Kimanis formed the limit of their territory to the south-west. Lately, however, they have acquired an additional tract of land which extends their boundary to the Sipitong, a small stream emptying itself into Brunei Bay. This acquisition adds about sixty miles of coast-line to the Company's territories, and includes what is supposed to be one of the richest mineral districts in Borneo. Grave accusations have, however, lately been made against the Company in the English journals, and the action by which their Government seized and condemned to penal servitude certain chiefs who resisted their annexation of the new territory was, if the facts have been accurately stated, at least high-handed.[1] The experiment of permitting the foundation of a nineteenth century East India Company in such an out-of-the-way corner of the world was a somewhat risky one, for the British Government is morally responsible for its acts. That it is a good thing that this part of Borneo, rich in natural products and furnished with magnificent harbours, should come under British rule none—except such as are of the "perish India" school—will deny. But whether such a territory is best administered by a private Company is altogether another question. Were England to take it over she would have a most excellent bargain, and I do not imagine the shareholders would contemplate the possibility of such a proceeding with any great alarm. The country, as I have already said,

[1] A check has been lately placed on any further annexation by the Company. The Rajah of Sarawak has acquired the belt of country which is drained by the Trusun and Panderuan Rivers, and intervenes between British North Borneo and the now fast-disappearing Kingdom of Brunei.

abounds in birds' nests, gutta, camphor, rattans, pearl-shells, coal, and a hundred other articles of export that a bountiful Nature has provided ready to hand. Worked under the wise Dutch system with native agriculturists, the land would doubtless also produce sugar, coffee, and other tropical vegetable products with advantage. But that it will ever prove a suitable field for white planters is very improbable. Close at hand, Sarawak offers easy communication with Singapore; it is three days nearer England, and its climate is at least as good as that of North Borneo. In point of civilisation, it is nearly forty years in advance of the latter territory. It offers nearly double the extent of land to choose from, with a soil that is quite as good, and, in the opinion of some judges, better. Land, labour, and living are alike cheaper. The Rajah of Sarawak is willing to make free grants of land under certain conditions, and, if a planter has definitely resolved on choosing this part of the world as a field for his labours, it is difficult to see what possible reason he could have for preferring British North Borneo to Sarawak.

CHAPTER XVI.

LABUAN AND BRUNEI.

We entered Victoria Harbour, Labuan, in the sweltering heat of an afternoon sun on the 7th of June, and were delighted to find our old friends of the China station—H.M.S. *Champion* and *Magpie*—at anchor. Two days later the *Sheldrake* arrived, and an unwonted air of business pervaded the little settlement, for it was a long time since four ships had been seen together in the port. Labuan is a small colony and a modest; it has but little communication with the outer world, and to the globe-trotter it is as yet an undiscovered country.

Looking from the sea, the leading idea impressed upon the mind is one of heat. Broad stretches of white sand, rows of white huts, and a few low, white bungalows meet the eye. Everything seems flat and white and hot, and the view is rather African than Bornean. To the right a level plain of short turf, dotted with casuarina trees, stretches away from the beach for nearly a mile. Forest there is none, but below and on either side of the little church some cool-looking dark greenery, on which the eye is glad to rest, betokens the houses of the few Europeans who inhabit the island. How few of these unfortunate individuals there were we had no idea until our arrival. We had pictured to ourselves an English society of not more than a hundred perhaps, but still large enough for a dance, a picnic, or some such form of entertainment, and had misgivings as to the state of our wardrobe. We might have spared ourselves our anxiety: to the best of my recollection there were but four Englishmen in the whole colony.

Labuan is the home of pluralism. Anchoring in the harbour, one is of course boarded by the Captain of the Port, with whom the latest news is discussed before proceeding ashore to make the customary calls. At the bungalow of the Colonial Treasurer we meet him again, and discover, to our surprise, that he is the master of the house. Referred to the Postmaster General on a question anent the mails, we once more

find our friend in a new capacity. He is like the public building in the famous story of Theodore Hook, and, were the office of Lord High Executioner existent on the island, he would doubtless fill it as efficiently as his other posts. No one, I feel sure, could object to being ushered out of the world by such a pleasant and interesting companion. The revenue having for some years fallen short of the expenditure, a considerable reduction in the staff was made. It is, in fact, a *reductio ad absurdum.*

Next day we made an excursion to the farther end of the island. Here, at the extreme northern point, are the now deserted coal-mines, which were the chief inducement to the English occupation. Horses not being obtainable, we were reduced to walking, and though nine miles in such a climate, with no forest to keep off the sun's rays, is somewhat of an undertaking, we were well repaid for our trouble. Labuan is so un-Bornean that that reason alone would make it interesting for a change. But at the same time it is decidedly attractive. Behind the level plain by the sea-beach the road, thickly overgrown with grass, leads for nearly a mile through an avenue of shady trees to the church. In spite of Labuan having been once an Episcopal see, there is not a single clergyman in the colony, and no services are held. For a long time the congregation consisted of two or three persons only. When it dwindled still further the church was closed. Around, scattered over the slopes of the little hill, are the bungalows of the Europeans, many of which are now deserted. The colony, in official language, "has only partially fulfilled the expectations formed of it." An American would say that it was "played out." Yet it was here that Low, with incalculable care and trouble, formed one of the finest fruit gardens in the East. Even crime has fallen into desuetude. In the country the sole guardian of the peace is a policeman who has lost both his arms: in the town twenty-five Sikhs form the only force.

The island is low and flat for the greater part of its extent, but rises slightly towards its northern end. The forest with which it was once covered has, for the most part, been cut down or burnt, especially on the eastern side, and a low undergrowth, in which a small rhododendron-like plant forms a conspicuous feature, has sprung up in its stead. Here and there some white-stemmed trees are left standing, and the landscape bears a curious resemblance to that in many parts of Australia. The road, which in the palmy days of the coal-mines was well kept, is now rapidly becoming overgrown. From time to time it leads along the beach, where the sea idly laps the blocks of white coral, and washes the roots of the trees that overhang it. Soon the low sandstone bluffs of Koubong Point come into view, and crossing the brow of one of the few hills of which the island boasts, one comes suddenly upon a small valley filled with huts and deserted bungalows. We found the little

railway overgrown with grass, and in the sheds the engines stood rusting, just as they had been left when work had ceased. Close by were the workmen's "lines," where at one time over five hundred coolies lived; and on the cliffs overlooking the sea, surrounded by a pretty garden and orchards, stood a charming bungalow, formerly the residence of the manager. It was tenanted by a solitary native, the only inhabitant of the place. All around lay the ruins of ironwork and gear of various descriptions. The place seemed a second Pompeii.

The mines have proved the ruin of no less than three companies, in spite of the fact that the coal is both good and abundant. The right of mining was leased by Government at an annual rental of £1000, but the difficulty of keeping the workings clear of water has hitherto alone proved an insuperable bar to success, although other circumstances have combined to produce the failures. The seams apparently extend throughout the length and breadth of the island, and have been found as much as eleven feet in thickness. The dip is not great, and the coal obtained, though burning very fast, is extremely good. The output in 1876 was about 6000 tons, but in 1881 only 800 tons were raised. With more efficient engines and Chinese labour, there is apparently no reason why the mines should not be remunerative.

Some twenty miles from Labuan, opposite the island of Moaro at the entrance of the Brunei River, another coal-mine was opened in the autumn of 1882. Three seams of great thickness had been found, running north and south, and the coal was of excellent quality. Although the workings had only been in operation for nine months, a considerable quantity had been raised, and the captain of the *Royalist*, who had traded on the coast for some years, and was largely interested in the venture, spoke most hopefully of its success. From what we saw during our day's visit to the place, his anticipations seemed well founded. The price of the coal at the pit's mouth was $4 per ton; at Labuan $6.

The island of Labuan, which has been an English colony for forty-two years, is well situated on the north-west coast of Borneo, and guards the entrance to Brunei Bay. It is about ten miles in length, by five in extreme breadth, and is distant 700 miles from Singapore. Its population is under 6000, and the bulk of the inhabitants are of Malay race. Nearly all the trade, however, is carried on by Chinese, of whom there are over a thousand on the island. It taps the neighbouring coast of Borneo, the Sulu Islands, and Palawan, but the establishment of the North Borneo Company has considerably affected it. There is little doubt that Sandakan will prove the future market of the greater part of this district, even if it has not already done so. Victoria Harbour is an excellent one, well protected in both monsoons, but the heat of it is excessive. The climate, at the period of the first occupation by the British, was extremely unhealthy, but owing to the clearing of

the jungle it has now much improved. In spite of the destruction of the forests the rainfall is still enormous.

A large portion of the island is unfit for cultivation, and the soil is, on the whole, extremely poor. The low and marshy ground forming so large a proportion of the acreage is, nevertheless, well suited for growing the sago palm, and rice is largely cultivated. Coconuts are also grown, and a considerable quantity of the oil exported, and lately a plantation of the West African oil palm has been established on Daat Island off Victoria Harbour. A fine specimen of this tree grows near the beach, in front of the town battery. The value of the oil is £41 per ton,—about £8 higher than the price obtained for coconut oil. Sago factories, where the raw product as used by the natives is washed and dried into the European commercial article, have been established for many years. The flour thus obtained is sent to Singapore, and forms the principal item in the list of exports. Over £30,000 worth leaves the island annually. In 1881 the imports amounted to the value of £182,113, the exports to £194,904. In 1884 both had decreased enormously—the imports amounting only to £84,874, and the exports to £85,741. In the same year the revenue exceeded the expenditure, the former being £4589, the latter £4216.

The Government is administered by a Governor appointed by the Crown and a nominative Legislative Council; but for the present the post of Governor is unfilled, and his duties are taken by the acting Governor, Dr. Leys. The Legislative Council is apparently permanently convened in the person—I use the singular advisedly—of the Colonial Treasurer, the Captain of the Port, and the Postmaster General. There has been no garrison on the island since 1871.

To the ornithologist Labuan is interesting as being the western limit of the Megapodes or Mound-builders,[1] a genus that is peculiarly Australian. The bird (*Megapodius lowi*) seems to be chiefly confined to the Kuraman Islands, at the south-west end of Labuan, although its nests are occasionally found on the main island. We were unable to visit the breeding localities, but the nests were described to me as large mounds, ten or twelve feet in diameter, built at the junction of the forest with the beach, just as in the case of many other species of this genus. The eggs are hatched by the heat of the soil. The Labuan Megapode is very closely allied to the Philippine species (*M. cumingi*), and has also been found on Balabac and Mindanao. A further investigation would probably reveal its existence in the little-known islands at the north of Borneo.

The history of the occupation of Labuan by the English is to a

[1] The Megapode of the Nicobar Islands is considered by Mr. Wallace to have been introduced by man. That this is not impossible must be evident to every traveller in the Malay Archipelago, for birds of this genus are often seen in captivity.

great extent mixed up with that of Borneo in Rajah Brooke's time, which is too lengthy for recapitulation. The main facts, however, are these. The Sultan of Brunei—Omar Ali—had been guilty of endless acts of piracy, and of an attempt to murder an English naval officer, and in consequence the town of Brunei was bombarded by the English. In a treaty subsequently signed the Sultan engaged to put an end to piracy, and to cede the island of Labuan to the British. On the 24th of December, 1846,—H.M.S. *Iris* and *Wolf* lying in Victoria Harbour, —the ceremony of annexation was performed, and a stone was placed at the foot of the flagstaff on the plain to commemorate the event. It still remains, and bears the following inscription :—

"On the 24th December, 1846, this island was taken possession of, in the name of Victoria, Queen, by order of Sir Thomas Cochrane and Captain R. Mundy of H.M.S. *Iris*."

In the following year Sir James Brooke was appointed the first Governor.

Some four hundred years ago the great island of Borneo was conquered by the Malays. To be strictly accurate I ought, perhaps, to say it was re-conquered, for the Dyaks are themselves of Malayan stock, and have probably only supplanted a previous race, of which nothing certain is at present known. The new-comers did not penetrate very far into the interior, but established themselves at various places on the coast, and of these settlements Brunei rapidly rose to be the chief. From its size and importance it was naturally the first place with which Europeans became acquainted, and hence it came about that the great water city of the East and the island on which it was situated were known by one and the same name. Its large size and the extraordinary manner in which it is built have astonished travellers for the past three hundred years. Pigafetta and other older voyagers have described it, and in later times it has become familiar to those who have read the works of St. John, Keppel, and Earl. Even in these days of easy steam communication, however, Brunei is but little visited, and it is remarkable as being one of the largest places in the Eastern Archipelago, and at the same time destitute of a single European inhabitant.

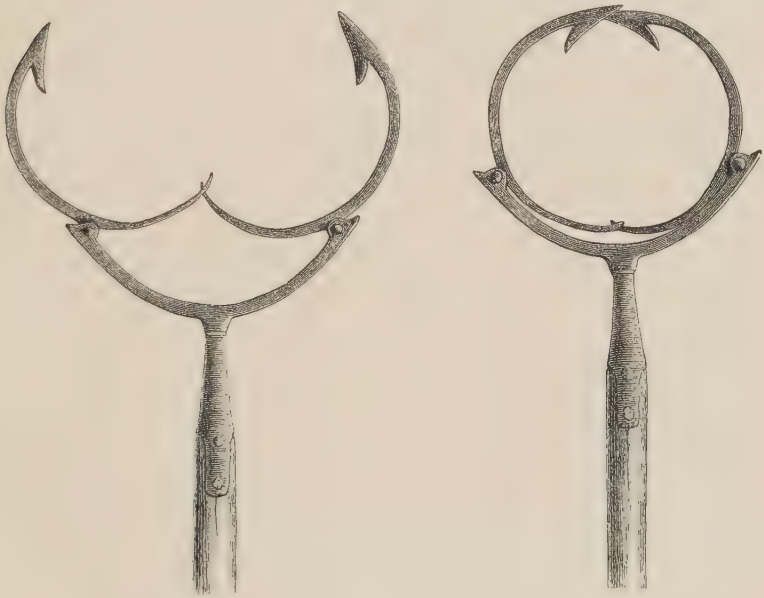
We had, of course, determined on visiting the city, and since the *Marchesa* had too large a draught to permit of her entering the river, we gladly accepted the loan of a large steam launch belonging to the North Borneo Company, which the Governor, Mr. Treacher, kindly placed at our service. From the harbour at Labuan to Moaro at the entrance of the Brunei River is a distance of about nineteen miles, and the city lies fifteen miles farther up stream. Unlike most Bornean rivers, it has no mangroves or Nipa palms along its banks, or so few that they do not attract attention. There is high land on either side,

and the range of hills on the left bank is believed to be very largely carboniferous, since there are surface outcrops of coal in many places. The scenery is in no way characteristic of the tropics. Rounding a sharp bend, we suddenly came in sight of the city, and a few minutes later we were safely at anchor in the main street.

Scarcely a traveller has described Brunei without speaking of it as the "Venice of the East," and it is, on the whole, a not inapt comparison. The palaces, it is true, are of a somewhat different order, and their architecture decidedly utilitarian, but the main features of the "Queen of the Waters" are there. The Grand Canal, crowded with boats, intersects the city, and the *vii* are represented by side-canals of a similarly puzzling nature. The life, indeed, is even more aquatic than in Venice, for it is generally impossible to enter or leave a house except by canoe. As for mal-odorousness, it is perhaps one of the few points in which the resemblance between the two cities fails. Venice can hardly be called deficient in this respect, but even the worst *vio* cannot approach the horrors of low tide in the main street of the Bornean capital.

The vast collection of houses, which is said to give shelter to a population of between twenty and thirty thousand people, lies in the middle of a lake-like expansion of the river, shut in on all sides by hills, which, though of insignificant height, are not unpicturesque. But the most striking view is of course obtained when looking down from them upon the city below. Hardly anywhere is an inch of ground to be seen, and many of the houses are built in deep water. To the north some large patches of mangroves mark out the position of a shallow bank, and here and there a coco palm, which is presumably rooted in dry ground, rises above the sea of huts. Myriads of canoes dart about in every direction, from the Pangerang's barges propelled by twenty paddles, to the little flat "dug-out" with a bare inch of freeboard, manned by a solitary naked native. The Brunei people are practically amphibious, and the children cruise about in miniature canoes almost before they are weaned. The safety of these craft is perfectly immaterial. At the age of five or six these little urchins have done far more swimming than walking, and their chief amusement seems to be the capsizing of each other's boats. What a Brunei man does when he is desirous of "running amok" I have no idea. If practised in a canoe—which seems the only course open—his opportunities must be restricted. In any case, however, there can be no need for peaceful householders to keep the ingenious instrument used in securing individuals engaged in this pastime which we found in Macassar. This article—as will be seen from the annexed illustrations—is of most simple construction, and, no doubt, effective enough when once applied. But I should imagine the adjustment of it a somewhat risky proceeding.

We had anchored close to the wharf of the leading Chinese merchant, the agent for the North Borneo Company, and our first visit was to his house. He had been made a Datu, and was a personage of considerable importance. Throughout the length and breadth of Malaysia the Chinaman has made his way. How he swarms in Singapore we are all aware, but that he is equally at home in the Aru Islands, and bids fair to monopolise the trade of the Philippines is, perhaps, not so generally known. At Macassar he shares the mercantile plum with the German. In the Moluccas, the vast amount of graves



A MALAY "MAN-CATCHER."

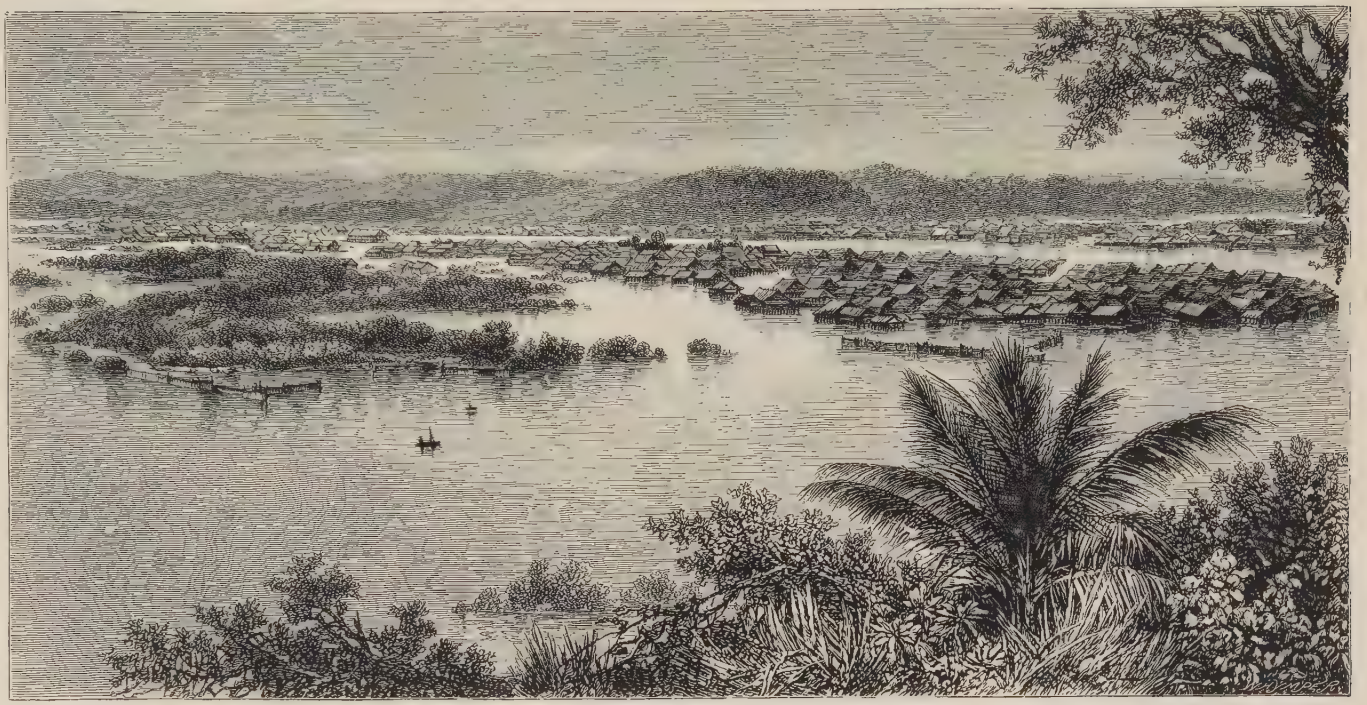
around Ternate testify to the number of his race who have lived and died there. In New Guinea alone he is not to be found, for neither white man nor Malay has, as yet, fairly established himself there, and the Celestial is rarely or never a pioneer. Every one who has visited Australia and California has seen what he can do where competition runs high, and money-making is the chief object, and should chance lead the traveller afterwards to the islands of the Malay Archipelago, the almost universal success of the Chinese population will cause him but little astonishment. The free-masonry existing among their race obtains work for the new-comer from the moment of his arrival, and as soon as he is able he embarks in trade. The indolent, dreamy Malay

is as a child in his hands. Little by little his money-bags grow. Soon he has a clerk, and ceases to pare his finger-nails. An air of commercial prosperity beams upon his countenance, and he is clad in purple and fine linen. It is not long before he is owner of a highly-ornamented house, a small, but select harem, and the best brands of champagne. He has reached the summit of all earthly ambition, and life has nothing further to offer.

Our host had long ago acquired this furniture of a terrestrial paradise, and produced some of it in the shape of a bottle of excellent Jules Mumm, which we discussed while chatting over Brunei politics and examining his goods. The city is renowned for its sarongs and krisses, and the goldsmiths' work is also tolerably good. The latter is, however, chiefly limited to cylindrical earrings, kris hilts or sheaths—which, by the way, have a large admixture of silver in their composition—and thin gold plaques, worn round the neck by the children of those of high rank, and inscribed with sentences from the Koran. Both the sarongs and krisses seemed very dear. The former were in many instances liberally worked with gold thread, so liberally indeed as to make them extremely heavy, and for these as much as $40 was asked. Good krisses will cost even more, especially if the handle be much decorated with gold, but inferior weapons can be obtained for a couple of dollars or less. Brunei gongs are likewise celebrated, their tone being supposed to be peculiarly sweet, but the traveller in this part of the world has generally suffered too much from their incessant noise to be at all anxious to purchase them.

We made our first acquaintance with the city in a "dug-out" procured for us by our friend the Datu. It was manned by four paddlers and a steersman, and giving ourselves up to their guidance, we threaded our way through the narrow and crowded thoroughfares with a speed and skill which would have astonished a Venetian gondolier. I have never seen anything equal to the dexterity with which our men worked their paddles. From a rapid and beautifully clean stroke of forty or more to the minute, they would drop instantaneously to a long steady swing of twenty, without any apparent signal having been given, and without a hair's breadth of deviation from the perfect time.

There is but little to see in Brunei with the exception of the market; little at least for a traveller to whom the Malay pile-built dwellings are no longer a novelty. Rickety huts with slippery steps leading to their dilapidated entrances, canoes of all shapes and sizes, stretches of fishing-stakes, Chinese stores, little brown urchins gambolling and splashing in the water, and a multiplicity of intolerable stenches,—these are the most striking features of the city. A little round island with coconuts on it is nearly the only break in the regular monotony of the huts. Here and there a tall cross raised above the platform of one of them tells,



BRUNEI.

Page 268.

not of the Christianity of the occupants, but of their industry in fishing. Here and there, too, a light bamboo bridge connects one group of buildings with another, but for the most part all communication is by water. The market is probably one of the most extraordinary sights that the East has to show. Each stall is a canoe, and it would puzzle an onlooker to form any estimate of their numbers, for the water is covered with craft of all sizes in incessant motion. At one moment there is a dense pack around some Chinaman or other trader, and each vociferates the prices of the produce on sale. At another there is a rush in the opposite direction, and the former buyer is deserted. Rarely, except perhaps in the Bourse at Constantinople, have I come across such an animated scene. The occupants of the canoes are almost without exception women, and for the most part old and ugly. Each wears a palm-leaf hat of enormous size, which serves the purpose indeed of an umbrella also, for it is large enough to protect the whole body from either sun or rain.

Our first night in Brunei was not a pleasant one. Whether the heat, the stenches, the mosquitos, or the incessant tom-toms were the most unbearable it was hard to say, but any one of them would alone have been sufficient to banish sleep. On the following afternoon we had an interview with the Sultan. His palace is a dilapidated old building, only to be distinguished from the surrounding houses by its decoration of a dozen or so of small flags, and by the presence of a few antiquated Malay guns upon the platform. In front of the house lay the royal barge at anchor. It is almost too large to be paddled, and when the Sultan goes yachting, it is generally towed by a steam launch. Amidships is a sort of carved cupola, but otherwise there is no attempt at decoration, unless indeed the figure-head be excepted. This is no beauteous dame with bosom bared to the ocean breezes, no stately goddess with proudly-extended hand, such as one sees in back yards at Portsmouth or Greenwich. It is something more refined, and at the same time more fitting, for, at the time of our visit, the poor old Sultan was far advanced in his second infancy,[1]—it is a child's rocking-horse!

We entered the palace and were shown into the audience chamber. Happy is it for Mrs. Loftie that fate has never led her to Brunei. The room was a poor, whitewashed apartment somewhat like a church, with a sloping roof and two side aisles. At the farther end was a triptych-shaped door opening into a small chamber which contained the throne—a piece of furniture composed of an arm-chair mounted on a carved and gilded sofa. We were given seats in the nave, and had time to take stock of our surroundings before the Sultan appeared. There were two rough tables covered with red tablecloths. The leg of one of them had been knocked off, and its place was supplied by a piece

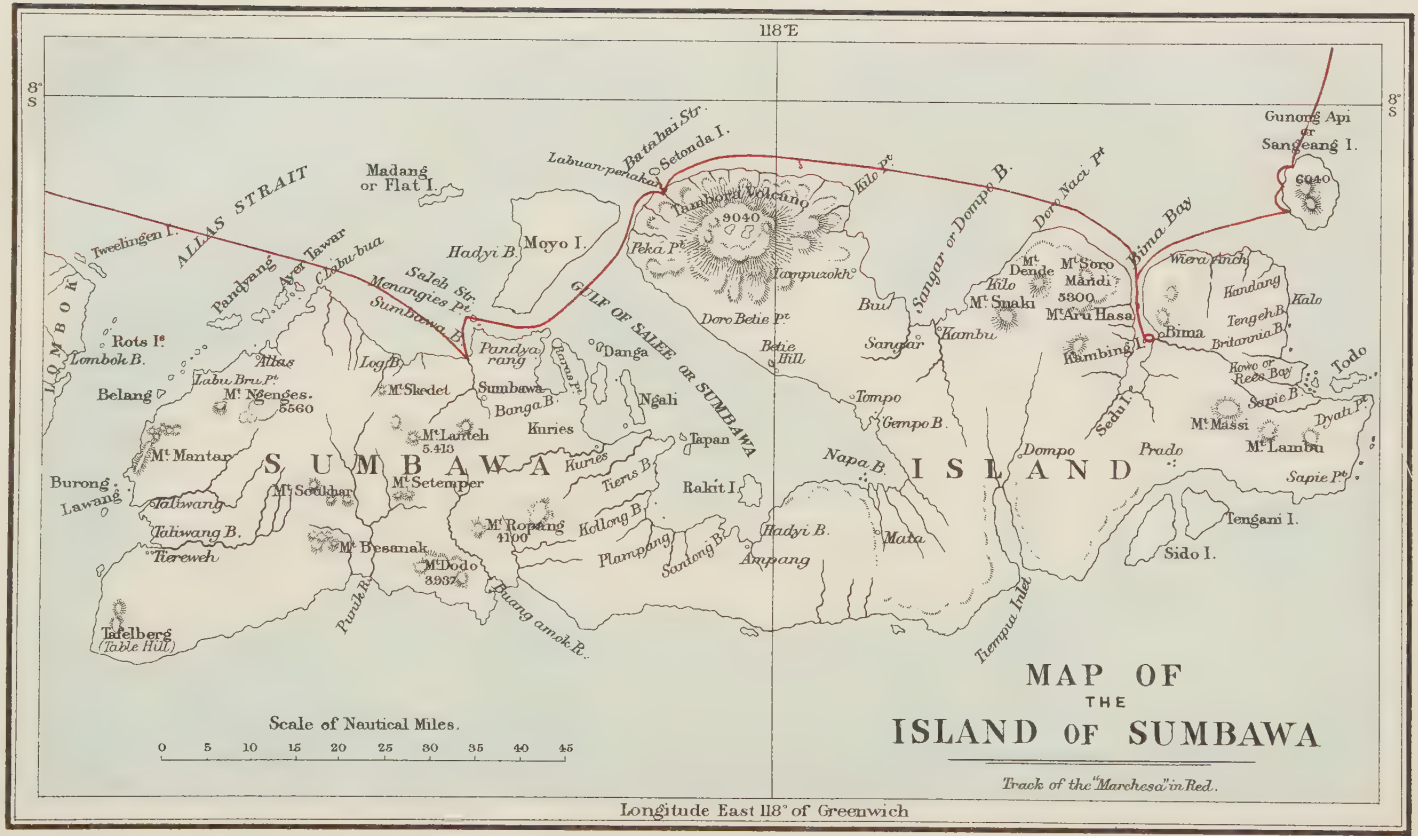
[1] He died in 1884, in his hundredth year.

of rough planking. Two strips of dirty stair-carpet covered the floor, flanked by two other strips of kamptulicon. On the walls the only decorations were eight dilapidated old mirrors which had once been gilt.

In a few minutes the Sultan made his appearance, and we were struck at once by his likeness to Pio Nono, which has been remarked by former travellers. He entered half pushed, half supported by his attendants, and after shaking hands with us, was hoisted on to his throne, where he sat puffing away at his *roko*. He was little better than an imbecile, and was evidently unable to realise our visit or to understand what was going on, and in a short time he was shuffled off again on the plea of a bad headache. Few of us look forward to becoming a bridegroom at the age of ninety-eight, yet we were told that barely a fortnight previously he had married a girl of fifteen.

Some disturbances had been anticipated upon the death of the Sultan, more especially between the Pangerang Anak Besar—a well-known character in the court at Brunei—and the Datu Tumonggong, who was the rightful heir according to Bornean law; but happily these anticipations have since proved incorrect. We could not help pitying the poor old Sultan, who, if he had any capability for reflection left, must have sighed over the gradual absorption of his kingdom. On the one side the North Borneo Company were seeking fresh territory beyond the Kimanis River; on the other the Rajak of Sarawak had extended his dominions as far as Barram Point. He must have felt it time that he should be gathered to his fathers.

We left Brunei for Labuan shortly afterwards, and on the following day sailed for Singapore *viâ* Sarawak, at which latter place, thanks to the kindness of the Rajah and other friends, we spent a most enjoyable fortnight. So short a stay in so well-known a country requires no description, and I shall ask my readers to accompany me to the less frequently visited islands of the Malay Archipelago.



MAP OF THE ISLAND OF SUMBAWA

Track of the "Marchesa" in Red.

Stanford's, Geogl. Estabt. London

CHAPTER XVII.

SUMBAWA.

We picked up our mails and took in stores at Singapore, and on the 26th of July sailed for Batavia. Passing through the Rhio and Banka Straits, and threading our way between myriads of islands of all sizes, we found ourselves at length in the Java Sea, and early on the morning of the fourth day came to anchor in Batavia roads.

We were the bearers of letters of introduction to H.E. the Governor General of the Netherlands India, a post from which our Viceroy of India only differs in the lesser amount of ceremonial attending him, and our chief, if not sole, reason for visiting Java was to present them. Our future route lay entirely in Dutch waters, and without letters from the authorities we should doubtless have found the way less smooth. The Governor General was kind enough to furnish us with a general letter, requesting any Dutch Residents or Kontroleurs with whom we might be brought in contact to assist us. An order to supply us with any coal we might need from the various naval coal depots was also given us, and fortified with these and all the Dutch charts that we could obtain—for the English surveys of this part of the world are but few—we felt prepared against all emergencies. I may here say that these recommendations were of the greatest service, and that we found the Dutch officials not only cultured and interesting companions, but also the kindest and most obliging hosts. Every facility appears to be given to naturalists visiting the archipelago, of whatever nationality they may be, but it is of the first importance that they should obtain proper letters of introduction from Batavia before starting.

Cholera was very prevalent in the port at the time of our arrival, and, as we heard in the following year on our return to Singapore, it developed a little later into an unusually severe epidemic, which carried off several of the Europeans. We were anchored next to one of the guard-ships, an old hulk which was no doubt in an insanitary condition, and, as eight or ten fresh cases were occurring every day, she was paid

off and broken up, and we met her sailors on their way to new quarters a week later as we returned from the beautiful hill station of Buitenzorg. We called upon our Consul, and the conversation turned on the epidemic. With a gesture he indicated an unconscious Javanese who was busily engaged in uncorking a bottle of soda-water for our benefit. "This man," he quietly remarked, "is the third I have had this week!"

The easterly monsoon was blowing fresh as we left Batavia, and we hugged the coast as closely as possible in order to avoid it. Passing between Raas and Sapudi Islands at the east end of Madura, we lay an E.S.E. course towards Bali. The mountains on this part of the coast of Java are very fine; the Kendang range, close to the Bali Strait, attaining 11,000 feet. At daybreak on the 9th of August we were close to Lombok. The height of the Peak of Lombok is given as 12,460 feet in the charts, and a rough sextant measurement that we took made it nearly the same, but it seemed to us hardly to look its height, and it is certainly far less striking than the Peak of Tenerife, with which it has been compared. Late in the afternoon we entered Sumbawa Bay—an unimportant indentation of the coast on the north side of the island of that name—and anchored off a little village at its head.

Sumbawa, which together with the neighbouring islands of Flores and Sumba is but little known to Europeans, is of considerable size. From our accepted English custom of representing the whole East Indian Archipelago in one map, most of us have acquired extremely erroneous notions of the extent of the Dutch possessions, and have equally under-estimated their size and value. Though insignificant enough by the side of Java or Borneo, Sumbawa is, nevertheless, over 170 miles in length, and is tolerably thickly populated, chiefly with people of Malay race. In the interior there is said to be a tribe of aborigines who are most probably of Papuan or Negrito stock, but no scientific account of them has hitherto been published. Previous to the great eruption of the Tambora volcano in 1815 there were believed to be about 170,000 inhabitants, but this number was very largely reduced by the catastrophe. That only 25,000 of them survived, as stated by Mr. Van den Broek, is, however, probably an exaggeration. Some years afterwards there was a large immigration of Bugis people from the south of Celebes. They established themselves chiefly on the north side of the island, and the rice is once more growing over what, a few decades back, was a scene of desolation. There are two Sultanates—Sumbawa and Bima—the latter including the almost unknown island of Komodo to the eastward and part of Flores, and over both the Dutch exercise a certain amount of authority. It is administered by a Kontroleur who resides at Bima—the sole European upon the island.

Sumbawa Bay, we found, afforded us tolerable protection, but during the westerly monsoon it must be decidedly unsafe. The surrounding country was parched to a degree, and the greater part of the trees seemed as devoid of foliage as they would be during an English winter. A greater difference than that existing between the islands of the Sunda chain and those of the Sulu group which we had left only a month or two before, could hardly be found. Here the south-east winds, sweeping over the dry desert lands of Australia, parch up the countries that lie in their path as far as Java, and from April to July little or no rain falls. The effects were obvious enough, and even from our anchorage we could see the buffaloes moving in little clouds of dust.

The village was composed of a few huts only, but over one of them, very shortly after our arrival, a Dutch flag was hoisted. Rowing ashore we found a half-breed, Omar by name, who spoke Malay and a few words of Dutch, and appeared to be the chief man of the place. From him we learnt that the town of Sumbawa, the residence of the Sultan, lay a few miles inland, and we accordingly despatched messengers to inform the latter that we were desirous of paying him a visit on the following day. It was just sunset, and we had but little time to explore our surroundings, but close to the kampong[1] we found a pretty little dove (*Geopelia maugei*) in great abundance, and also shot the Malayan Goat-sucker (*C. macrurus*), a bird of general distribution from India to New Guinea.

We were ashore early next morning, but there was some difficulty in getting bearers, and we loitered about for an hour or more before starting. The shores of the bay were of dark brown sand, which seemed to be entirely composed of disintegrated lava and scoriæ. Close to the sea, and along the bank of the shallow but bright little stream which debouches at this spot, the kampong is built. Each hut had the roof overlapping considerably at the gable, and beneath it two other little roofs protected the end of the building,—an arrangement that we found almost invariable throughout the island. Recurved and carved gable finials, such as, I believe, are to be seen in Sumatran houses, were very general, and some of the lintels of the entrance-doors were rudely painted in dull red. The houses were raised on piles, according to the invariable custom, but, owing to the space below the flooring being enclosed by bamboo fencing or mats, they had a more solid appearance than the usual style of dwellings to which the Eastern traveller is accustomed. Almost all were roofed with beautiful neatness by tiles made from split bamboo; little slips raised from the under surface sufficing to hang them on.

[1] *Kampong* is the Malay word for village. Its corruption "compound" has, in the Straits and British India, got to mean a garden or enclosure.

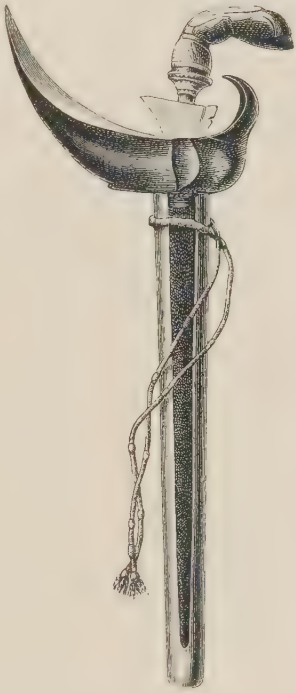
At a shady corner a little market was going on. There were barely half a dozen vendors, and one of them, to our great astonishment, we found to be an old Swahili woman, a type that, though familiar enough to us at Zanzibar, seemed incongruous in Malaysia. Many of the people were importations, and though the inevitable Chinaman was absent, there were Banjermassin men, Buginese from Celebes, and even Klings. The marketables were chiefly dried fish, bananas, and tobacco. The greater part of the latter comes from Lombok, and is excellent in quality and well cut. That grown on the island would no doubt be equally good if properly cured, but the natives apparently did not know how to prepare it. A few common Chinese and even English plates

SUMBAWAN HOUSE.

and cups were also for sale, but, with the exception of the bananas, no fruit was to be had.

Omar met us in brilliant attire, ornamented for the occasion with a bright silk *sarong*, and having a large naval sword dangling from his waist. He showed us a couple of letters signed with French names, in which it was stated that he was to be trusted. It appears, singularly enough, that a ship comes to this place every year from Mauritius to buy ponies. With the exception of the monthly steamer to Bima, it is probable that not another vessel worthy of the name visits the island. Both Sandalwood and Timor, however, export a good number of ponies. The Sumbawan animals are admirable little beasts, standing about twelve hands, and generally brown or skewbald. They are of good shape, and in spite of their small size seem to carry almost any weight. Their price ranges from twelve to fifty dollars. Buffaloes were numerous in the fields, and sheep and goats were also kept by the

natives, who asked as much as four dollars each for them. Tame pigeons, very much like our English runts, were housed in pigeon-cots elevated on poles—doubtless a wise precaution, as rats were said to be very abundant.



SUMBAWAN KRIS.

Our bearers having at length appeared, we at once started. Several stray natives had joined us, and we formed a large party. The road was broad enough to have admitted three carriages abreast, but we saw no wheeled vehicles on the island. It led straight southward through a plain yellow with ripe padi. Everywhere great numbers of the natives were to be seen. Many were engaged in the fields, cutting rice and stacking it on the backs of the ponies. Groups of them met or overtook us, all of whom were mounted, and all, whether at work in the fields or riding, were armed with spear and kris. The latter weapons are of excellent workmanship. The steel is purposely left unpolished, and is, in fact, quite rough. The blades are valued according to the "twist," which is often as well worked as in a pair of Damascus barrels by a good English gunmaker. Most of them have a sinuous curve and pistol-shaped or right-angled handles; none the beautifully-shaped grips of the Sulu *parangs*, which are in reality far more effective weapons, though less murderous-looking. The spears, even of those of the lowest rank, had hilts of worked silver reaching down the shaft for eight or ten inches from the insertion of the blade.

A mile or two after leaving the sea we again struck the Sumbawa River, which, in spite of the long-continued drought, was still running as a stream of clear water about a foot in depth. Many of the Sumbawan rivers, we were told, fail altogether in the dry season. Leaving the more cultivated land behind us, we came to a wilder part, with occasional patches of thorny thicket, and it was here that I was able to realise for the first time that we were in a totally different zoographical region from Java and the other great Malay Islands. However well one may be acquainted with the facts of regional division, and with the zoological and other characteristics of the various parts of the Malay Archipelago which have been so admirably described by Mr. Wallace,

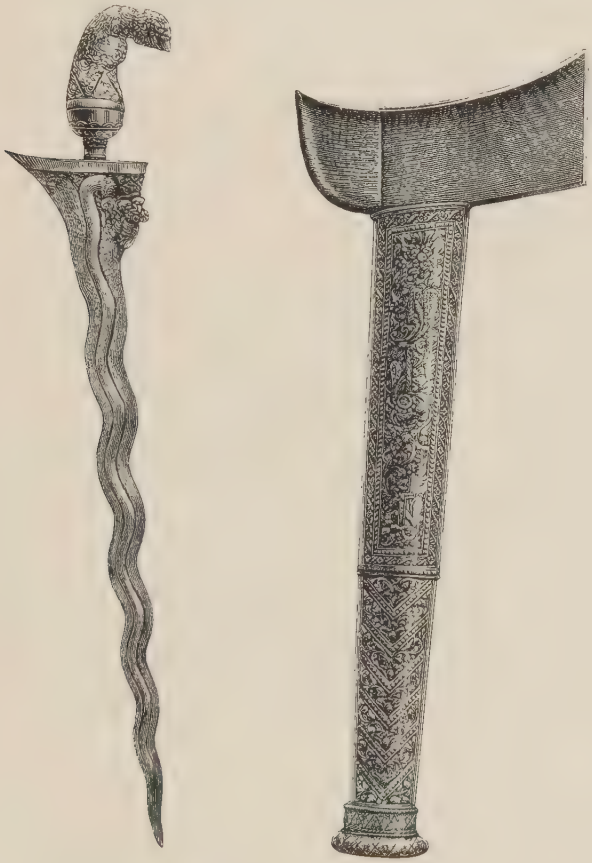
the personal realisation of them gives an amount of pleasure to a naturalist which few people can imagine. Java was the last country we had visited, but here the vegetation was of quite a different type. Euphorbias of two or three species were abundant, and it was scarcely possible to enter the dry and scrubby jungle without being brought constantly to a standstill by the thorns. In the Malayan jungle the rattan is almost the sole impediment of this kind. The forest-trees were unfamiliar, and owing to the leaflessness of many of them, there was a remarkable absence of colour in the landscape. Here and there only a Bombax caught the eye, its crimson flowers conspicuous at the ends of the bare branches. The prickly pear was growing everywhere, and to judge from its abundance, must have been introduced into the island many years ago. No rain had fallen for five months, and the heat and dust were intolerable. The latter lay thick upon the trees and plants, and enveloped us in a light impalpable cloud as we walked. Our surroundings were indeed different to the eternal verdure of a Bornean forest.

Among the birds too there was a strong element of novelty. Two species especially obtruded themselves on our notice that were eminently of Australian type,—one, the Lemon-crested Cockatoo (*C. sulphurea*), whose snowy plumage rendered it very conspicuous, the other a singularly ugly Meliphagine bird (*Tropidorhynchus timoriensis*), of uniformly dull brown plumage, and with a bare neck and face, which, in small flocks of eight or ten, kept up a continuous and most discordant chatter in almost every thicket. Several specimens of a lovely golden oriole (*Oriolus broderipi*) also fell to our guns, the male of which is of a brilliant orange yellow. It is a species peculiar to the islands eastwards of Bali.

It was not long before we arrived at what was called the Bugis kampong, a straggling village nearly a mile long, which closely adjoins the town of Sumbawa. It is entirely occupied by these people, and we were told that there were only three Buginese in the capital itself. Every "compound" was fenced in with the greatest care, as were all the fields also, and there were many evidences of high cultivation. We saw a considerable quantity of tobacco growing. It was topped in the same manner as it is in America and other countries where it is grown for trade—from eighteen to twenty leaves only being allowed to remain.

We entered the town, which was apparently without palisades or fortifications of any kind, and a large number of natives turned out to stare at us as we passed. All were armed with spears, which one would have imagined no little hindrance to them in their ordinary avocations, but they appeared rarely or never to leave their hands. One party we surprised were screaming with laughter and splashing one another with water, old and young alike,—rather contrary to the usual quiet and

undemonstrative habits of those of Malay race. We were informed that the Sultan was asleep, and were accordingly led by Omar to the house of the Tungku Jirewi. It consisted of three small rooms, in the outer one of which, adjoining the balcony on either side of the wooden steps, he received us. He was a little man, wasted almost to a



KRIS WITH WORKED GOLD SCABBARD, SUMBAWA.

skeleton by opium-smoking, and was dressed in the usual bright-coloured silk *sarong* and *baju.* He wore a flat cap of plain black silk, of the shape which used five and twenty years back to be termed a "pork-pie." It was decorated with a gold band, not of lace, but a thin plate of the metal itself. A large gold stomacher nearly the size of an octavo book adorned the region of his waistcoat, and a kris, with its sheath and

handle covered with the same metal, hung at his side. A dozen or more old muskets, mostly with flint locks, stood in a rack at the back of the room together with some spears, one of which was beautifully hilted with worked gold. There is, of course, no ivory in the island, but both this and gold are imported, and largely used for kris and spear decoration. These weapons excited our admiration as much as our guns did theirs, but although we tried on several occasions to buy them,

THE TUNGKU JIREWI.

we were seldom able to come to terms. Many of them were heirlooms, and the prices asked were in all cases very large. Omar told us that he had known two hundred dollars offered for a spear blade only, so highly prized are some methods of working the steel.

After a long *bichara* of the usual character, we asked the Tungku's permission to eat in his house, and he retired meanwhile into the adjoining room, whence sounds of various female voices were audible. From time to time an eye peeped through a chink in the bamboo wall, and it was evident that we were being freely inspected and criticised by

the ladies of the harem, who in these islands have not the freedom permitted to those in Sulu. We had brought with us a couple of bottles of champagne, which experience had long ago taught us to have even more power than music in soothing the breast of Oriental potentates, and, disregarding the Koran, we sent some in to our host and his companions. It had the effect of bringing him out for some more, and we prevailed on him to share our tiffin, which, however, was evidently less to his taste than the wine. We were anxious to get him to sit for his photograph, and on the operation being explained he readily consented, and retired to get himself up for the occasion. He reappeared arrayed in a large gold crown which must have been nearly a foot across, and was made of the pure metal, although not much thicker than a sheet of stout brown paper. His state umbrella was held over him, his spearmen grouped on either side, and two antiquated cannon guarding the house placed in a conspicuous position, but, with all these martial and gilded accessories, the effect was not imposing, and Thackeray's delightful sketch of "Rex.—Ludovicus.—Ludovicus Rex" occurred at once to one's mind. Our noble sitter was shrivelled to a mummy, and his one request was for "some medicine to make him fat."

We adjourned to the house of the Datu Banda, where we had Chinese tea offered us, and were informed that the Sultan had gone *ka igreja*—a phrase that required no knowledge of Malay to translate, so we went out to inspect the town. In a large open square beneath trees, and adjoining a cemetery which was planted *selon regle* with champacs, a crowded market was going on. The vendors were all women, and were guarded by spearmen, who permitted none of the sterner sex to enter, and would make no exception in our favour, greatly to our disappointment. Reaching the neighbourhood of the Sultan's Palace we were again stopped. It appears to be against etiquette, if not worse, to approach it. On the outskirts of the town we came upon a veritable Aceldama,—a small field where all the animals of the town appeared to be slaughtered. It was covered with ox-bones and dried blood, and was a gruesome sight.

Returning to the Datu Banda's, we were told that the Sultan would see us, and at once proceeded to the palace. It was a wooden building of considerable size, surrounded by a low stone wall and double gates. A small guard of spearmen occupied an open bamboo guardhouse near the entrance. Entering, we found a long flight of covered wooden steps, up which we were conducted to the reception-room, a large hall with its roof supported by massive wooden pillars, which, like the doors, were painted a bright pea green. The walls were of plaited bamboo, and had five or six large kites hung against them, made, as is the custom here, in the shape of birds. At the farther end of the room

were evidences of European civilisation in the shape of a table and some chairs, behind which stood racks of flint lock, and percussion guns.

The Sultan, who was nearly seventy-four years of age, had evidently been a good-looking man in his day, and was comically like a benevolent old English lady, the resemblance being heightened by his wearing his grey hair in side puffs over the ears. He received us pleasantly, and told us that the English were a good people, and that their Queen had sent him a gun, which was brought for our inspection. As it was evidently of Belgian make, we had our doubts as to the donor, but did not, of course, undeceive him.[1] Tea, cakes of banana meal, and a sort of wine were brought in for us, and our objects and reasons for visiting Sumbawa demanded, though in the politest manner. Such questions, as may be imagined, are extremely difficult to answer in such a manner as to be comprehended by the native intellect. The naturalist travelling alone is, perhaps, within their grasp, but that any one would sail about the world in a large ship merely for the purpose of travel and natural history is too much to expect any one to believe, and our explanations were received with a politeness which only half concealed the underlying doubt. As usual on these occasions, we were the "cynosure of neighbouring eyes," which watched us unremittingly from the tiny little windows of the ladies' apartment, and behind us row after row of natives, for the most part wearing a sarong and kris only, squatted on their haunches listening to the conversation. Our interview ended by the Sultan arranging to return our visit on the following day, and we eventually left the town for our homeward ride late in the afternoon. It was long after dark when we arrived at the beach.

Next day our time and energies were devoted almost exclusively to the entertainment of our guests. The Sultan, who had previously bargained for a salute of twenty-one guns, made his appearance at eight o'clock in the morning, and remained on board for some hours. After his departure the Tungku Jirewi, who also intimated by a special messenger that his rank required seven guns, came off to the ship, and it was late in the afternoon before we finally got rid of our visitors. A shooting excursion that we had previously planned was consequently a failure, and we got neither deer nor pig, although both are said to be fairly abundant in the neighbourhood. The low jungle which we beat looked quite dead, but the natives told us that in the rainy season it would soon be in full leaf. It was ankle-deep in powdery dust, which floated round us in little clouds as we walked. After sundown night-jars of two species (*C. macrurus* and *C. affinis*) hawked over the dried-up

[1] We afterwards found out from the authorities at Macassar that the story was in the main correct. The ship *Invererne* having been lost on the coast of Sumbawa, the Sultan had taken charge of the crew, and treated them kindly until they were taken off the island. The Dutch authorities had been commissioned to present him with the gun.

padi fields in hundreds. In no other part of the world have I ever seen birds of this genus in such extraordinary abundance.

On the 12th of August we sailed at daybreak for the coast to the eastward, as it was our intention, if possible, to ascend the great Tambora volcano. We passed to the south of Majo Island, and crossed the mouth of the Salee Gulf, which divides Sumbawa almost in half. The land to the south is low, and the monsoon, crossing it, blew strong from the south-east. Majo, like the country round the town of Sumbawa, looked dried up and withered to the last degree. The gulf is even now the haunt of pirates, and its shores are more or less deserted for some distance inland, where the natives live in fear and trembling within stockaded towns. The first sight of Tambora—one of the most tremendous volcanoes in the world, with a crater eight miles in diameter—is not a very striking one, owing perhaps to the very breadth of its summit, but the forests on its slopes were beautifully green and fresh-looking, contrasting strongly with what we had until then seen of Sumbawan vegetation. We slowly approached the land, and passing to the south of the little island of Setonda, which is what the Sicilians would call a son of Tambora, and merely a crater sticking up from the sea, we anchored to the east of a small bay, with the centre of the great volcano bearing about S.E.

This place—known to the natives as Labuan Penakan—had been spoken of by the Sultan as being a possible locality for obtaining help in the ascent of the mountain. A few huts were visible on the beach, and soon after our arrival a dug-out canoe came off, manned by two men, who brought the carcase of a deer (*Cervus timoriensis*), which they wished to sell for rice. We had none of this to dispose of, but we eventually bought the animal for six yards of "Turkey red"[1] and a small packet of tobacco. It was unfortunately not entire, and we were therefore unable to add its skeleton to our collection.

From the natives we learnt that the ascent of Tambora from this side was impracticable, or at least attended with so many difficulties as to be nearly so. There was no track whatever, and we should have had to cut our way through the jungle, which was very dense and thorny, for three or four days. We therefore relinquished the idea, and occupied ourselves by exploring and making a rough sketch survey of the little bay, which afforded good anchorage in the east monsoon, and had a beautiful stream of clear water at its head.

We took two or three photographs of Tambora, and on the following day sailed for Bima. Slowly rounding the northern and eastern sides of the volcano, we had a good opportunity of admiring its vastness and solidity. Although over 9000 feet, it appears of much less height, and

[1] "Turkey red" is a thin cotton cloth, largely used for trade and barter both in Africa and the East Indian Archipelago.

is devoid of the graceful pyramidal shape generally seen in volcanoes which have been slowly built up by less violent but unceasing action. Its slope is a very gradual one, more especially on the south-east side. This, I believe, is where the Dutch traveller, Dr. Zollinger, attempted the ascent, and, as far as it was possible to judge, it seemed the most practicable approach, being devoid of forest, which is the case nowhere else. On the northern side there is an enormous gap in the lip of the crater, through which a stream of lava has burst, and torn its way through the forest to the sea. It was hard to believe that only seventy years had elapsed since the occurrence of the most appalling eruption known in modern times. The rank vegetation of the tropics soon hides the scars which in Europe would remain for centuries.

What that eruption was can best be gathered from Mr. Wallace's account :—

"The great eruption began on April 5th, 1815, was most violent on the 11th and 12th, and did not entirely cease until the following July. The sound of the explosions was heard at Bencoolen in Sumatra, a distance of over 1100 miles in one direction, and at Ternate, a distance of over 900 miles in a nearly opposite direction. Violent whirlwinds carried up men, horses, cattle, and whatever else came within their influence, into the air; tore up the largest trees by the roots, and covered the sea with floating timber. Many streams of lava issued from the crater, and flowed in different directions to the sea, destroying everything in their course. Even more destructive were the ashes, which fell in such quantities that they broke into the Resident's house at Bima, more than sixty miles to the eastward, and rendered most of the houses in that town uninhabitable. On the west towards Java, and on the north towards Celebes, the ashes darkened the air to a distance of 300 miles, while fine ashes fell in Amboina and Banda, more than 800 miles distant; and in such quantity at Bruni, the capital of Borneo, more than 900 miles north, that the event is remembered and used as a date-reckoner to this day. To the west of Sumbawa the sea was covered with a floating mass of fine ashes 2 feet thick, through which ships forced their way with difficulty. The darkness caused by the ashes in the daytime was more profound than that of the darkest nights, and this horrid pitchy gloom extended a distance of 300 miles to the westward into Java. Along the sea-coast of Sumbawa and the neighbouring islands the sea rose suddenly to the height of from 2 to 12 feet, so that every vessel was forced from its anchorage and driven on shore. The town of Tambora sank beneath the sea, and remained permanently 18 feet deep where there had been dry land before. The noises, the tremors of the earth, and the fall of ashes from this eruption extended over a circle of more than 2000 miles in diameter, and out of a population of 12,000 persons who inhabited the province of Tambora previous to the eruption, it is said that only 26 individuals survived.[1]

[1] "Australasia," Stanford's Compendium, p. 425.

SUMBAWAN CHIEF, BIMA.

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Bima Bay, a narrow inlet running north and south, and nearly fifteen miles in length, has been a settlement of the Dutch since 1660, if indeed that term can be applied to a post where one European and a handful of coloured soldiers drag out a miserable existence. The bay forms an excellent harbour, protected from all winds, and the town, placed on its eastern shore, is of course provided with its little fort and large flagstaff—two objects that in our subsequent wanderings among these islands we found, together with low white bungalows, gin and bitters, Manilla cheroots, and complete *ennui*, to be the leading characteristics of a Dutch settlement in Malaysia. The country round the entrance to the bay was as parched and dusty-looking as that in the vicinity of Sumbawa, but as we steamed down the narrow fjord-like inlet every little cove revealed itself as an oasis of coco palms in the desert around. Two forts, each as large as a good-sized room, guard the narrowest part, which is hardly more than a quarter of a mile in breadth. They were unoccupied, but a few rusty old cannon peeped out of the embrasures. Beyond these narrows the bay expands to a considerable size; to the west a fine range of mountains, 6000 feet in height, shuts it in, and southward, seven miles away, some dark blue, Scotch-looking hills indicate its farthest limits.

The town is placed on a flat, which in the west monsoon becomes a swamp, and hence fever, generally of a severe type, is prevalent, more especially on the advent of the rains. We got ashore with some difficulty,—for a mud-bank with an inch or two of water on it makes landing anywhere opposite the town an impossibility,—and paid our respects to Mr. Diepenhorst, the Resident. He welcomed us with such evident pleasure that it expressed, better than any words could have, the monotony of the life he led. He talked English fluently, and had not been away from civilisation long enough to have lost his interest in the world's affairs. His house was entirely open in front, with no other security than blinds, yet he assured us that he felt perfectly secure, and had never lost any of his property. He accounted for it by the fact of there being only three Chinese in Bima, but the 700 Klings who were said to be settled in the district must have been of unusually immaculate character. Mr. Diepenhorst estimated the entire population of the island at about 70,000, of which 5000 live in Bima. About the same number, the Sultan had informed us, inhabited the town of Sumbawa. Crawfurd[1] speaks of three languages as existing in the island,—the Bima, the Sumbawa, and the Tambora,—all of which are written in Bugis character. Two of them, the first and last, are very distinct, and have but a slight admixture of words of foreign origin. Mr. Diepenhorst, however, who was a good linguist, informed us that there is a fourth, and perfectly distinct language spoken in Dompo, a

[1] "Grammar and Dictionary of the Malay Language," vol. i. p. 92.

district to the south-west of Bima, and that in the country around Bima itself two widely-different dialects exist.

There had been no rain in the town for six months—a period of drought unusual even in Sumbawa. The water has in all seasons to be brought from the hills by coolies, an affair necessitating much labour, as the spring is five miles distant. In the vicinity of the town large quantities of rice are grown, the low-lying land lending itself especially

VIEW IN BIMA.

to its cultivation, and an elaborate system of irrigation exists, the water-supply being drawn from a small river, the mouth of which is close to the town. Coffee is cultivated in the hills, but it is of poor quality, and fetches less than half the price of that grown in Northern Celebes.

Birds were numerous in the fruit gardens in and around Bima, and placed as Sumbawa is on the outskirts of the Austro-Malayan sub-region, it was interesting to note the mingling of the Indian and Australian forms. The Ashy Tit (*Parus cinereus*), which has extended as far eastward as Flores, was one of the first birds that attracted my attention; its clear and unmistakable note almost exactly resembling that of our

own Great Tit. A small wood-pecker (*Yungipicus grandis*, Hargitt)—another alien genus in this region—was far less common. Side by side with these Indian forms occurred other genera of Australian origin,—*Pachycephala*, *Stigmatops*, *Geoffroyus*, and a beautiful brush-tongued lory (*Trichoglossus forsteni*), which seems to be peculiar to the island. Our bag at the end of a long day contained over sixty specimens, and we sat up skinning them until it was nearly daybreak, for in such a climate the heat admits of no delay in these matters. Among them was a *Zosterops* new to science, with a brownish head and the rest of the body a pretty golden yellow.[1]

The most productive shooting-ground was in the neighbourhood of a large cemetery at the back of the town. The tombstones were for the most part smooth and club-shaped, and were placed at the head and foot of the grave, the outline of the latter being marked by pebbles. Three tombs however—those of the old Sultans of Bima—were conspicuous among the rest; large oven-shaped erections of red brick covered with plaster. A low entrance with stone lintels deeply carved with inscriptions led into a little chamber in which was a raised wooden grave of an ordinary Malay type—much like a child's cot. These tombs were said to be about 200 years old, and were much dilapidated and cracked, no doubt in great part owing to the earthquakes and eruption of 1815.

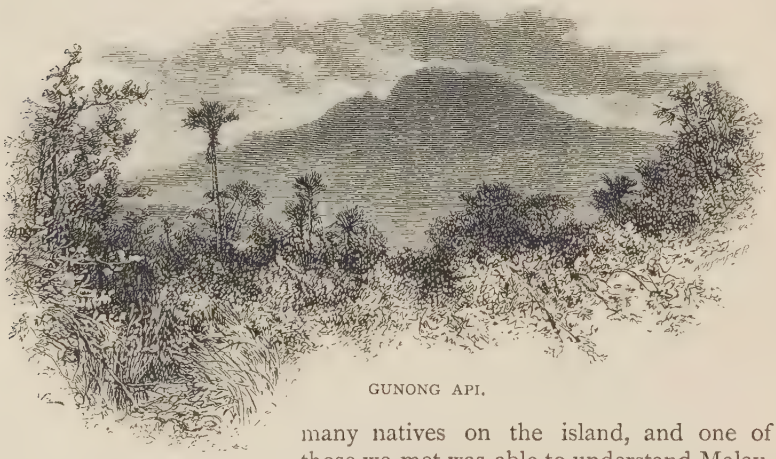
At the north-east end of Sumbawa, and barely six miles from its shores, lies the island of Gunong Api[2] or Sangeang. The distance at which we had sighted it had led us to doubt the accuracy of the chart, in which its height is given at 2040 feet, and on taking measurements as we approached, we found it to be slightly over 6000 feet,—a great elevation upon so small a base, for the island is less than seven miles in breadth. The coast is steep-to on the western side, and as we steamed slowly along, almost within gunshot of the beach, in search of an anchorage, we had plenty of time to admire the fine scenery it afforded. From a shore of black ironstone sand the mountain rises steeply up, at first as a series of hummocky hills, covered with green and yellow lalang grass, and separated from one another by narrow gullies filled with dark-foliaged trees. Beyond, a sharp slope of dense forest reaches nearly to the summit, which is formed by two bare peaks. The diversity of colouring was wonderful, and both in this and other respects the island bore a singular resemblance to Madeira. The presence of a few white houses dotted over the hills was alone wanting to make it almost complete.

Our object in visiting the island was chiefly to procure water, for

[1] *Z. sumbavensis*. *Vide* "Proc. Zoolog. Soc." 1885, p. 501.

[2] A Malay name (*Gunong*, mountain; *api*, fire) applied to two or three different volcanic islands in the Eastern Archipelago.

that obtainable in Macassar, which was to be our next port, was, we were warned, of bad quality, and in cruising in these climates it is of the first importance that the drinking water should be pure. We tried at two or three places without success, but on despatching a boat ashore when off the W.N.W. point, the boatswain returned with the intelligence that there was a spring close to the sea, so we at once landed to inspect it. The ground was dry and dusty even in the gullies, but between high and low water mark rapid runlets of clear water streamed out for a distance of three or four hundred yards along the beach. It would, however, have taken a long time to fill our tanks, and we decided to defer that operation until we discovered a better place. We found



GUNONG API.

many natives on the island, and one of those we met was able to understand Malay. They are Sumbawans who have immigrated from the adjoining coast, and speak one of the two Bima dialects. We picked up the skull of a large pig, and the natives also told us that there were numbers of deer on the island. That snakes of a very respectable size also existed we inferred from our finding a piece of the shed skin of one of them, which measured over seven feet in length. Among our ornithological spoil was a quail of a new species (*Turnix powelli*), which I have since named after my friend Lieut. R. ff. Powell, R.N., who accompanied the *Marchesa* in her voyages to Kamschatka and New Guinea.

At our next anchorage, about two miles farther along the coast, we were more fortunate in our search for water, the proximity of which was evident from the presence of a rather large village of scattered huts. The most marked feature in the vegetation here was the large number of Palmyra palms (*Borassus*),—a rather coarse-stemmed tree crowned

with a disproportionately small bunch of fan-shaped fronds,—which, though conspicuous enough in those parts of the island that we visited, more especially from the fact that dead ones were exceedingly numerous, do not so often attract the notice of the traveller in the islands farther west. Like some other palms, it flowers but once, and dies immediately afterwards. Behind the village a tremendous gorge leads steeply upwards towards the peaks, through which in the rainy season a large body of water must find its way to the sea. The prolonged drought had reduced the stream to a mere rivulet, which flowed through a wilderness of huge boulders, but we found enough water for our purpose, and a few hours' hard work sufficed to fill our tanks. On the following day we weighed anchor and set our course N.N.E. for Macassar. Our visit to Sumbawa had been too short to get anything more than a passing glimpse of the country, and we had been disappointed in our plan of ascending Tambora, but we had added considerably to the number of our photographs, and by diligent collecting had succeeded in obtaining forty species of birds, two of which, as I have already mentioned, were new to science.

CHAPTER XVIII.

CELEBES.

THE SOUTHERN PART of Celebes is affected by the easterly monsoon quite as much as the islands lying to the south of it, and, as we neared the coast, the thick haze characteristic of the dry season rendered our position a matter of some uncertainty. We at length recognised the small island of Tana-keke, and passing through the network of shoals which here and to the north present considerable difficulties to navigation, we came to anchor in the roadstead of Macassar. We had passed the guardship on entering, and two or three vessels only lay off the town, but everywhere innumerable praus were to be seen, from the large Aru trader of forty tons or more to small dug-out canoes. The Buginese are the *orang khalasi*—the seamen—of the Eastern Archipelago, and trade as far eastward as New Guinea.

Macassar is not attractive from the sea. The land around is low and flat, and as we landed the place fairly grilled in the heat, which the whitewashed houses and the thick, greenish-white water of the anchorage helped, in appearance at all events, to increase. But putting Java aside, it is the most important town in the whole of the Dutch East Indies, and the centre of trade of a vast extent of country. Ternate, Amboina, and Banda are the only other places worthy of the name of town in Netherlands India, but though the former of these was settled earlier by the Portuguese,[1] and the spice trade of the others has been renowned for centuries, they will always remain of inferior importance as compared with the more western town. Batavia is the Singapore of the Dutch; Macassar their Hongkong.

It is seldom that an Englishman is found in these regions, and,

[1] A few Portuguese apparently settled near Macassar in 1512, the year following Albuquerque's conquest of Malacca, but it does not appear that they fairly established themselves until many years later, whereas Ternate had been garrisoned by De Brito in 1521, and was held continuously for sixty years. The Dutch occupation of Celebes dates from 1660, in which year they destroyed six Portuguese ships off Macassar, captured their fort, and concluded an alliance with the King of Goa.

indeed, the traveller, if he be of that nationality, may safely calculate on seeing the last of his countrymen for some time to come on leaving Batavia for a voyage to Celebes and the Moluccas. Our ships rarely cruise in these waters, but, just previous to our arrival, H.M.S. *Champion* had visited Macassar,—the first English man-of-war, it was said, that had entered the port for thirty years. Whether this is accurate I do not know, but the ship was received with such kindness that the interval might well have been a century, and the letters of introduction we carried from her officers ensured us a warmth of hospitality that was as pleasant as it was unexpected. Our first call after presenting these was upon the Governor, and though we were more or less acquainted with the etiquette to be observed on these occasions, it is probable that my reader is not, and I may as well describe it once for all.

A ceremonial call is generally paid at 7 P.M., dinner being at a quarter or half-past eight, and a black coat with tails is a *sine quâ non.* A dress-coat and waistcoat are considered *de rigueur*, but a frock-coat or even a "cutaway" may be worn without a breach of decorum. Tails, however, are absolutely essential, and a coat destitute of these ornaments, even if black, would fail to guarantee one's respectability. The trousers should be white, and a hat, even if only carried, is indispensable. To Englishmen this latter rule may appear superfluous, but in the Dutch East Indies no head-covering of any kind is worn after sunset by either sex. The guests on arrival are seated round a table, generally in the verandah, and Port, Madeira, Hollands, and bitters are placed before them—drinks that, in defiance of the climate, no well-regulated Dutchman would dream of omitting as a prelude to dinner. Manila cheroots are handed, for smoking is of course universal, and behind the master of the house squats a native with a fire-stick, ready to respond to the "*kasi api*" of any guest who may require a light.

He must be "*robur et æs triplex*" who would venture upon gin and such like fiery liquids in these latitudes before dinner, but the Dutch customs in Malaysia are not all so unsuitable. In the way of dress especially the ladies are far in advance of their Anglo-Indian sisters. In the morning they appear in native costume. A short lace-edged *kibaya* of thin white linen buttons up to the throat, and a silk *sarong* reaches to the feet, which are without stockings, and clad only in a pair of gold-embroidered Turkish slippers. The effect, although perhaps at first a little startling to European eyes, is decidedly good, especially in a young and pretty woman, and in the way of comfort and coolness there is little to be desired. English prejudices are, I fear, too strong to admit of the adoption of such sensible garments in our own tropical settlements, where, alas! corsets and black dress-coats have taken too deep a root in the fashions to be easily got rid of.

The society in Macassar was very pleasant, and not less so from the fact that almost every one spoke English or French nearly as well as their own language. One of the first entertainments to which we were invited was a private theatrical performance followed by a ball. It was given in a public hall, which on Sundays served the purposes of a church! A large number of people were present, and we were astonished at the abundance of the fair sex, if indeed the "chocolate ladies," as they are here termed, can be included in that category. There appeared to be none of that separation of colour which is so marked a feature where Briton meets Eurasian. The reason no doubt lies in the fact that, after a time, life in these regions renders a return to the gloomy skies and winter of the north a pain rather than a pleasure. The official in the Netherlands India, condemned to a preposterous length of service before he can obtain furlough,[1] feels that his lot must be to live and die there, and that his Fatherland is as impossible to him as to the Lotus-eaters:—

> "For surely now our household hearths are cold:
> . . . our looks are strange;
> And we should come like ghosts to trouble joy."

And so he marries; not perhaps a half-caste, but some one whose dark hair and rich warm colouring betray the presence of other than European blood. Should his constitution survive the anteprandial port and bitters, he retires to Batavia or Buitenzorg on the completion of his term of service, and spends the remainder of his life in the society of his fellows.

The acting was good, but the *blijspel* rather heavy. After it was over the seats were removed and dancing began. Champagne appears to be a favourite wine with the Dutch, and the supply of it was inexhaustible. It had, we learnt, a prophylactic power of which we had till then been ignorant. The advent of cholera was expected, and we were instructed how to avoid it. "Float the liver, my dear sir; keep your liver constantly floating in champagne, and you will never catch the cholera," was the advice given us, and every one certainly seemed to act up to it to the best of his ability.

The town is much as other Dutch Malayan towns. A row of white shops and merchants' offices lines the sea, and dust of a lightness and powderiness that is not excelled even in California or the Diamond Fields covers the streets to the depth of an inch or more. These are otherwise clean enough, and the spare time of the native servants—and they appear to have plenty of it—is occupied in perpetual watering. There is, of course, a fort, and equally of course, a *plein*. The cemetery is significantly full. Almost all the tombs are kept white-washed, and, as many of them are curious chapel-like erections with flying

[1] It is—I believe I am right in saying—as much as fifteen years.

buttresses, the effect at a distance is something between an ice-palace and a clothes-drying ground. The houses of the Dutch residents, shadowed in peepul or *galela* trees, stand back a little distance from the road—long, low, and cool, with thick white posts at their entrance-gates. A long avenue of magnificent overarching trees leads eastward from the pier, adown which the Governor may be seen driving any afternoon in a four-in-hand with sky-blue reins. It is lighted by means of lamps hung midway between the trees, for the Hollander, even although gas may be unattainable, considers civilisation incomplete without these

A NATIVE STREET—MACASSAR.

adjuncts. Then, too, there is the club, with its zinc-topped tables set out café-fashion beneath the trees. It is called the "Harmonie," as is every Dutch club in Malaysia, and within all is dark and cool and deserted during the mid-day heat. The servants are curled up asleep behind the bar or in the corners of the rooms, and would stare in dumb astonishment at the apparition of a European, for the early business of the day over, and the *rijst tafel* or lunch despatched, the white residents get into their pyjamas, and take a siesta till three or four o'clock. A couple of hours or so are then devoted to business, and towards sunset the male portion of the population meet at the "Harmonie" to chat and drink *pijtjes*. Billiards is the most violent exercise taken; cricket, bowls, and lawn-tennis are unknown.

While we were at Macassar the King of Goa gave a house-warming,

to which most of the Dutch and German residents were invited. This monarch, although on friendly terms with the Dutch, occasions them a considerable amount of inconvenience from the proximity of his dominions to the town, and robberies by his people are not uncommon. We drove over in company with some of our Dutch friends through mile after mile of padi field and dense clouds of dust, which the excessive heat did not render more bearable. As we neared our destination the large number of natives proceeding in the same direction betokened a general holiday. The palace, which was built of wood, was the work of a Chinese architect, and its exterior was gay with gold and colours. We entered a large room on the first floor by means of a covered stairway,

A GOA CHIEF.

and were duly introduced to royalty. The king and the members of his family were conspicuous by wearing plain black satin *sarongs* without trace of ornamentation, but their *bajus* and caps were gold-laced, and they carried krisses with beautifully-worked gold sheaths. Several Dutch officials and their wives had preceded us, and numerous servants passed noiselessly from guest to guest handing trays of sweetmeats, tea, and coffee. Various hangers-on, naked save their caps and *sarongs*, squatted in the corners of the room, and the grandchildren of the king, clad in little else except bracelets and rows of gold plaques hung upon the breast, trotted about with evident delight. These latter ornaments, which are inscribed in relief with verses from the Koran written in Bugis character, are made in Macassar, and are often of beautiful workmanship.

We learnt from an initiated Dutchman that lager beer and *sagueir* were being dispensed to a favoured few in a corner. The latter is a

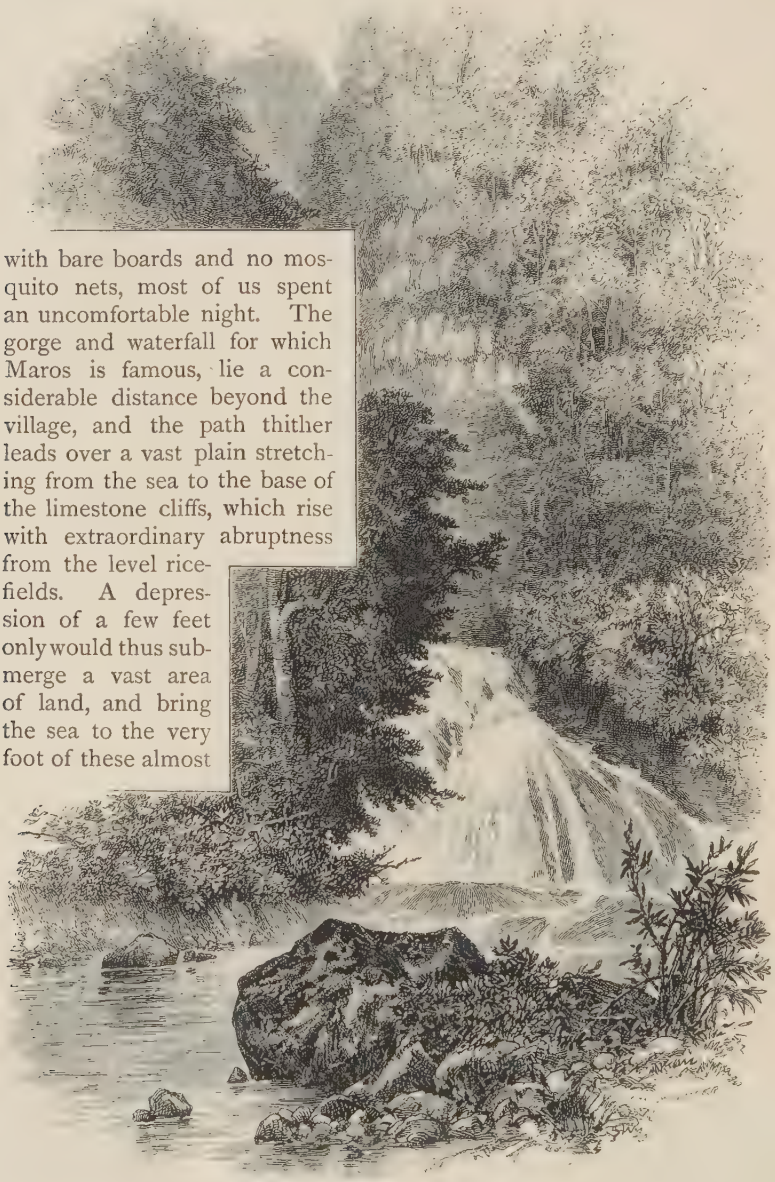
sweet palm wine, not unlike cider, and is made from the juice of *Arenga saccharifera*,—a tree which, with its thick fronds and heavy pendulous masses of globular green fruit, soon becomes a familiar object to the traveller in Celebes and the Moluccas. Our servitor had a history. Now the major-domo of the king, and a most important personage in his way, he had seen many vicissitudes. By birth he was apparently part Malay, part Portuguese, and part negro, but of however many nationalities he may have been, he was at one time in affluent circumstances. An unlucky speculation lost him all his money—nearly £4000—and he took to the road, or rather to the mountains, where for eight years he managed to elude the authorities and to earn his livelihood. At length, however, he had to give in, in consequence of the number of Dutch troops sent out against him. History does not relate the cause of his being pardoned, but a more respectable-looking butler than he appeared while directing the management of his cellar I never saw.

Our tiffin was evidently intended to be equally suited to Malay and European tastes. Various little rissoles, coloured rice cakes, and half a hundred other indescribable comestibles were done up in neatly-plaited bamboo cases hardly bigger than one's finger, while a few joints of mutton represented the cuisine of the West. Champagne and claret, both far better than could have been expected, were handed, and after a couple of speeches from the Governor and their replies, we escaped gladly from a durian-eating neighbour into the fresh air outside.

Our entertainment terminated, as a matter of course, with cock-fighting, a sport beloved by all of Malay race. The spurs used were about three inches long, and made of the blades of razors, ground down to excessive thinness. With such weapons there is but little cruelty in the affair. We waited to see a main fought before we left. The king and other royal personages made their bets; the combatants were placed opposite to one another; they made two feints, and in less than half a dozen seconds the vanquished bird lay motionless on the ground. Had he met his fate legitimately at the hands of the poulterer his death could not have been more rapidly effected.

The descriptions of our Dutch friends, and the account given by Mr. Wallace in his "Malay Archipelago," made us anxious to pay a visit to Maros, a district lying twenty or thirty miles north of Macassar, and early one morning a small party of us started in a steam launch kindly lent us for the occasion. We ran along the coast for some miles until the mouth of the Maros River was reached, but owing to the shallowness of the water on the bar, we had to tranship into small native boats to convey us for the rest of our journey, and it was long after dark when we arrived at the village, which lies many miles up stream. A small fort, built in bygone days by the Dutch, acted as a sort of rest-house, but there were only two rooms and two beds, and

with bare boards and no mosquito nets, most of us spent an uncomfortable night. The gorge and waterfall for which Maros is famous, lie a considerable distance beyond the village, and the path thither leads over a vast plain stretching from the sea to the base of the limestone cliffs, which rise with extraordinary abruptness from the level rice-fields. A depression of a few feet only would thus submerge a vast area of land, and bring the sea to the very foot of these almost



FALLS OF THE MAROS RIVER.

vertical walls, and in past ages such a condition no doubt actually existed. Curious outlying rocks—islands indeed they might be called—guard the entrance of the gorge from which the river debouches, and near one of these we were shown the site of a battlefield where the British forces encountered the natives at the beginning of the present century.[1]

I have seldom seen quainter scenery in the tropics than that within the gorge. The perpendicular sides close in very rapidly after passing the entrance, and become in some places overhanging, with curious protuberant stalagmites of huge size. The level bottom of the valley, clothed at first with bush and small trees, soon becomes narrow and uneven, hardly admitting of a path beside the little river. It is closed in by a fall of about fifty feet in height, the water of which slides gracefully over a half dome of smooth basaltic rock, which here, as Mr. Wallace has remarked,[2] underlies the limestone formation. Scrambling up by the side of the waterfall, an upper gorge is reached, the scenery of which is very pretty. The placid little stream of milky blue water flows between an avenue formed by perpendicular bush-covered cliffs, and half a mile beyond there is a second fall, in the basin of which we had a most refreshing bathe. Still farther the gorge contracts almost to a fissure, with walls of great height.

The house in which Mr. Wallace had taken up his quarters five and twenty years before still stood at the mouth of the valley, although uninhabited and much out of repair. In these countries, however, where palm-leaves are plentiful, it does not take long to make a habitation comfortable, provided the uprights are still standing, and it would be difficult for a naturalist to find a pleasanter collecting-ground. Birds were tolerably abundant, and butterflies extraordinarily so, but among the thousands that fluttered around the pools we looked in vain for the large Swallow-tail (*P. androcles*), which is one of the finest of its genus. Our time was too limited for any serious collecting, and our naturalists' bag was a light one as we paddled down the Maros River on our way back to Macassar. We had an opportunity of making a large addition to it in the shape of a young crocodile, which we suddenly encountered lying asleep on the bank with its mouth partially open. Our bullets failed to stop it, and it instantly disappeared. A good story with regard to these animals is told of a certain Dutch gentleman whose name is frequently mentioned in the "Malay Archipelago." The Government had offered a reward of two dollars for every crocodile killed, and Mr. X—— not infrequently claimed it.

[1] The Dutch colonies, like the mother country, became absorbed in the French Empire, and the French Governor-general of Java having capitulated to the British in 1811, Celebes was also occupied. It was restored to the Dutch in 1816.

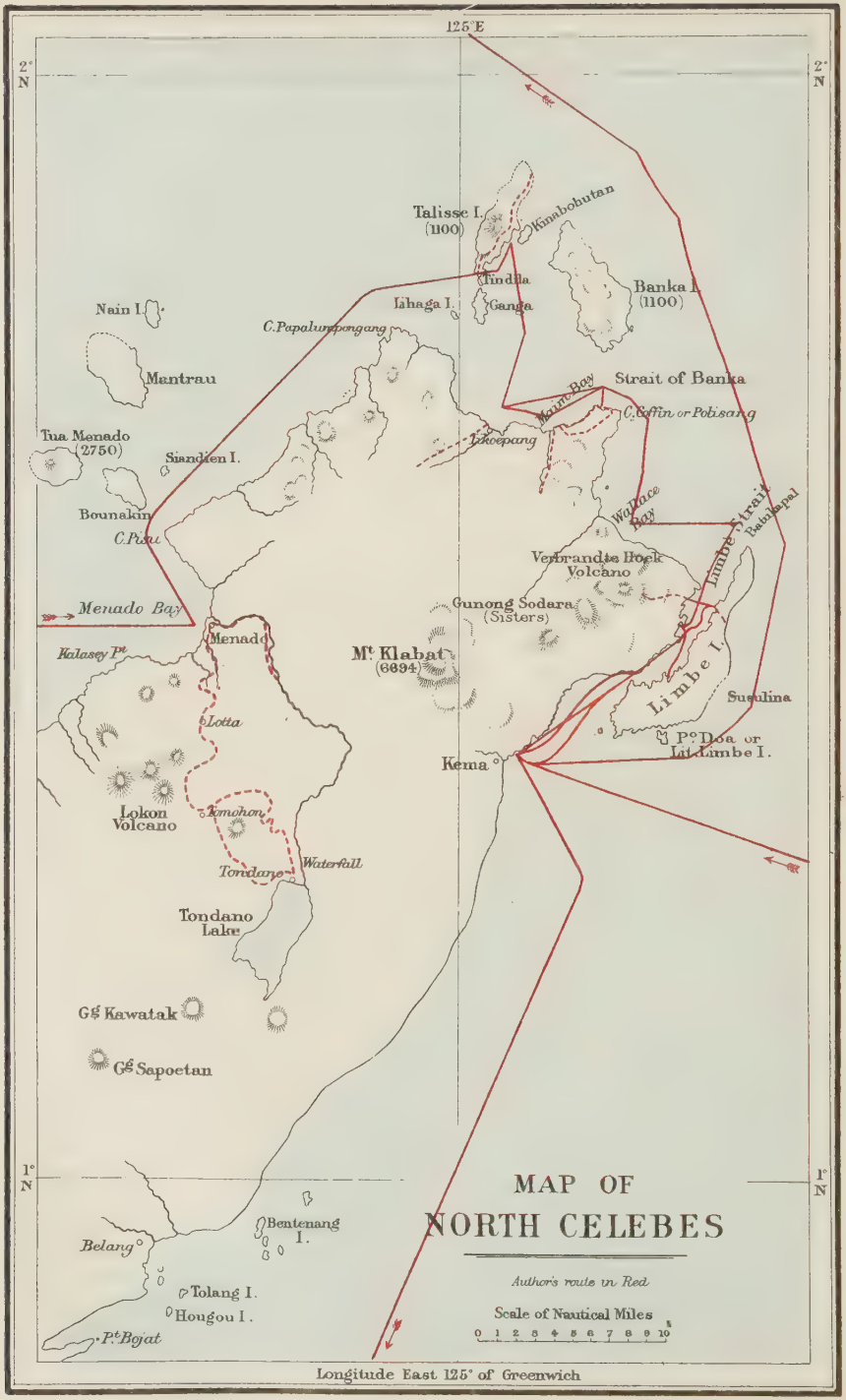
[2] "Malay Archipelago," Seventh Edition, p. 238.

In process of time these claims became so extraordinarily numerous as to lead to an investigation, when it was discovered that he had established a most successful breeding-ground by staking a small reach of river at some distance from civilisation, and that his stock of Saurians was nearly as profitable as an American cattle-ranche appears to be in a prospectus.

On Sunday, the 26th of August, 1883—memorable in the annals of the East Indian Archipelago as the date of the appalling eruption of Krakatau in the Straits of Sunda—we left Macassar for the north of Celebes. For forty miles or more northwards from the roads the coast is guarded by a complex network of islands, reefs, and shoals, the navigation of which is always avoided by ships. A survey of this Spermonde Archipelago, as it is called, had just been completed by the Dutch, and we resolved to attempt the passage. We found the charts admirable, and had no difficulty whatever in getting through. The route is a great saving in point of distance, and can easily be attempted by a steamer, but daylight is necessary. The islands were all low and sandy, and evidently supported a large population, for they were crowded with huts and coconut palms.

In spite of the large size of the island, and the immense extent of seaboard it affords, the Dutch have practically no settlements in Celebes except at Macassar in the south and the district of Minahasa at the extreme north. The former, as I have already stated, is chiefly a port of trade, but the country in the neighbourhood of Menado and Kema included under the latter name is one of the best coffee-growing districts in the world, and it was with the intention of seeing something of the Dutch system of management, and at the same time of adding to our zoological collections, that we resolved on spending a month or so in this part of the island, of which Mr. Wallace's descriptions had led us to form the highest expectations. Realisation in these cases is very often disappointing, but in this instance it happily was not, and I may anticipate by saying that there were few places in our Malaysian cruise with which we were better pleased.

On leaving the port of Macassar for Menado the mariner has, roughly speaking, to steer north for four hundred and twenty miles, and then east for another three hundred before arriving at his destination, and during that time he will have materially altered his climate. He will have crossed the equator and passed beyond the Australian influence of the south-east monsoon, and instead of the arid rice-fields and their attendant powdery dust, he will find himself once more in a region which, although occasionally subject to drought, is practically one of perennial verdure. In our voyage north our course led us from time to time within sight of the coast, and the mountains of the interior were usually shrouded in heavy mist or rain-cloud, beneath which the



Stanford's, Geogl. Estabt., London

dense jungle loomed out a sombre green. Farther east, towards the end of the peninsula, the land is of lower elevation, and here we experienced better weather, bright sunshine alternating with heavy showers. On the morning of the fourth day we arrived off Menado.

The entrance to the roadstead is a picturesque one. Eastward the Klabat volcano stands up boldly, its graceful cone nearly 7000 feet in height; while to the north the little volcanic island of Tua Menado forms a shapely pyramid which reminds us of Gunong Api. On the left bank of a small river, behind a bright sandy beach, the white houses peep out here and there between the dense foliage of fruit-trees and palms. But we had little time for admiring the scenery, for an event occurred on our arrival which was within an ace of bringing the cruise of the *Marchesa* to an abrupt termination.

The anchorage off Menado is an exceedingly bad one, and is only available for ships during the south-east monsoon. The westerly monsoon sends a heavy sea into the bay, which is completely exposed, and hence, at the latter season, any vessel visiting this part of Celebes is obliged to anchor at Kema, a small port on the opposite side of the peninsula, whence the goods are conveyed overland to Menado. The two towns, although only twenty miles apart as the crow flies, are really considerably more by road, owing to the mountainous country which has to be traversed. But even during the south-east monsoon, the anchorage at Menado is extremely unsafe, owing to the steepness of the bottom—the soundings decreasing within a few cables from 150 to 2 fathoms. For this reason hawsers have to be laid out astern and made fast on shore, or the first puff of the land wind drives the vessel off into deep water.

We were about to take up a position which we afterwards discovered was the best, when a boat rowed out to us with a half-caste on board, who professed to act as harbour-master, and offered to show us the anchorage usually taken up by the Dutch gun-boats. It did not appear correct by our chart, but as he seemed perfectly confident, we dropped gently astern towards the place in compliance with his instructions. Directly afterwards a native he had brought on board spoke to him, when he turned round hurriedly and said, "*Niet meer achter*,"—no more astern. The engines were put at full speed ahead before he spoke, but it was too late and we took the ground. The sea-breeze blowing fresh at the time the ship's head rapidly payed off, and in less than a minute we were aground stem and stern.

A small brig was lying a short distance from us, and as quickly as possible we got hawsers out to her, and, when fast, weighed our anchor —which we had vainly let go in the hope of stopping the vessel's head from swinging round—and commenced hauling off. To our dismay, however, the hawser carried away, and our bow was in consequence

driven farther on the bank by the sea, which had by this time somewhat increased. We now began to bump heavily,—a most unpleasant sensation—and as every send of the sea ground us down more and more into the bank, we feared lest the ship might become firmly fixed before we could adopt further means for getting her afloat. We sent ashore for large boats and hands to aid in getting out our bower anchor, and meanwhile laid our stream anchor out to sea and got another hawser to the brig. We hauled on both only to meet with another failure, for the anchor "came home," and for the second time the hawser gave under the strain. We had now but one chance left us,—that of getting out our bower anchor—which we had been unable to try before, owing to the lack of proper boats. By this time, however, we had obtained a small barge, to the stern of which we slung the anchor, putting in eighty fathoms of chain cable. The cutter took another thirty, and the two boats proceeding seaward let go in twenty-three fathoms, an operation attended with some difficulty, owing to the uncomfortable sea running at the time. This time we were successful, and between 2 and 3 P.M. the *Marchesa* floated off into deep water, having been ashore five hours.

Our troubles were nevertheless not yet over, for the cable smashed at a shackle when anchoring for the second time, and we lost our anchor. We were more fortunate on the third trial, letting go in 55 fathoms and veering to 145 fathoms. We then made fast with two hawsers to the shore, and felt that we had earned some rest. All hands were fairly tired out.

We had been told that the wind would drop about noon, but this prognostication proved incorrect, for it increased in violence during the day, and in the evening the surf was so heavy that two of our party who had gone ashore were unable to get off to the ship. Had we failed in our final endeavour the *Marchesa* would have made her last voyage. The natives of the place, who had seen more than one vessel lost here, were rather surprised at our good fortune. The so-called harbour-master, who had been the sole cause of the occurrence, took good care to keep out of our way. Our only consolation was that the yacht, which was a very strongly-built vessel, appeared to be quite uninjured.[1]

Our misfortunes had caused us early to become acquainted with the chief Dutch residents in the place, and through their kindness we had but little difficulty in procuring horses and oxen to take us to the Tondano lake, which lies in the mountainous district in the middle of the peninsula. We started early on the morning of the 1st of September,

[1] The method adopted by the captain of the brig for anchoring in Menado will amuse my nautical readers. On approaching the port—with which he was well acquainted—he let down his anchor with 60 fathoms of cable attached and went in under all plain sail. Directly the anchor took the ground he shortened sail, and as the ship swung to the sea-breeze, the hawsers were got out, and she was soon fast head and stern.

and as we crawled slowly through the village in an ox waggon we had every opportunity of admiring its beauties. It is, I think, the prettiest settlement in the whole of the Dutch East Indies. Each little cottage is surrounded with its garden and fruit orchard, and the neatly-trimmed hedges fairly blaze with scarlet hibiscus. Pink ixoras and magnificent crotons of many varieties, some of them five and twenty feet or more in height, add to the colouring. The village is in reality a vast garden, and an exceedingly productive one to boot.

The road for nearly five miles was excellent, and we walked along shooting by the way, for our bullocks went but slowly, and the gardens of fruit-trees, nutmegs, and cacao were full of birds. The latter tree has lately been a failure, owing to a peculiar disease which causes the pod to shrivel up after it has been fully formed, and it is in consequence no longer planted. One of the commonest birds we found was a kind of starling (*Scissirostrum dubium*), with a most peculiar bill, and with the feathers of the rump tipped with scarlet, in a manner somewhat resembling the wing of the Bohemian waxwing. It appeared to be very abundant, packing in small flocks and frequenting the tops of trees. This bird is peculiar to Celebes, and it was with the greatest interest that I watched it for the first time, for, as Mr. Wallace has long ago remarked, it has no representative in any of the surrounding islands, and is perhaps more closely allied to the tick-eating Buphaga of Southern Africa than to any other bird. Another equally interesting bird which fell to our guns was the Racquet-tailed Parrot (*Prioniturus platurus*), a genus which is confined to Celebes and the Philippines. On our way we met a man carrying a small animal with thick woolly fur—a little Phalanger (*Cuscus*), peculiar to Celebes, which, after some discussion, he consented to part with for a guilder. These animals, which are characteristic of the Austro-Malayan sub-region, make very engaging pets, and we had two or three different species of them on board the yacht during her cruise in the archipelago. They are about the size of a rabbit, and appear to be entirely arboreal in their habits, climbing slowly about among the branches of the trees on which they feed, aided by their long claws and prehensile tail, which is completely bare for some inches at the tip.

Our road led southward, and about a couple of miles before reaching Lotta, a pretty little village with about two hundred inhabitants, we commenced a steady ascent, and left the gardens of Menado behind us. Our bullocks were so poor that it soon became doubtful whether we should reach Tondano that evening, although it was only twenty-two miles from our starting-place and we were provided with relays. As we went on the road became still steeper, and our dâk not having been well laid, in Anglo-Indian phraseology, the doubt soon resolved itself into a certainty. At sunset we had made little more

than ten miles, the steep climb and bad road having obliged us several times to outspan and rest our bullocks. We had reached an altitude of two or three thousand feet on the shoulder of the Lokon volcano, and the road, skirting a deep ravine filled with a wild tangle of jungle, gave us a magnificent view of the country. Opposite to us, across the gorge, Mount Klabat hid the Gunong Sodara and other volcanoes from our sight, its summit touched by the setting sun; and to our left lay the Bay of Menado, where we could just discern the two ships lying at anchor. Large tree-ferns were very abundant here, and formed a

ON THE ROAD TO TONDANO.

marked feature in the foreground of our landscape. The dampness and mossiness of the forest indicated the heavy rainfall that these elevated regions experience, and the trees were covered with a marvellously luxuriant growth of parasitic plants and creepers.

For more than an hour we trudged on through the darkness before reaching the village of Tomohon, where we inquired for a night's lodging at the house of the "Major."[1] From Mr. Wallace's description of the "Major" of this identical village just a quarter of a century before, we were not unprepared for the reception we experienced. Our host was a new one, but the house perhaps was the same. It was a pretty cottage standing in a little garden bright with flowers,

[1] "Major" is the title given by the Dutch to the village chiefs in these districts. They superintend the coffee industry in their own parishes, and receive a certain percentage of the produce.

with a deep verandahed room leading to another sitting-room beyond. Behind these were four bedrooms and the kitchen and offices. The sitting-room was furnished just as a Swedish post-house might be:—white-painted walls and floor, white muslin curtains, a duplex lamp, two sofas, a circular table with books, a portrait of the King of the Netherlands, and a large six-tune musical-box. We were reminded of Mr. Wallace's description, and felt with him how difficult it was to believe that our host's grandfather had worn "a strip of bark as his sole costume, and lived in a rude hut abundantly decorated with human heads."

Much of the neatness and nice appearance of the house was no doubt owing to our hostess, a pretty but rather shy little Dutch girl who had married the "Major" only a few weeks previously; he having settled the sum of 5000 guilders *on her parents.* Neither of them seemed to regret this somewhat extraordinary transaction, and they were evidently a most attached couple. The Major was a bit of a musician in his way, and favoured us after dinner with a tune on the accordion when the large musical-box had exhausted its *répertoire.* It is worthy of remark that this was almost the only occasion in Netherlands India on which we were called upon to speak Dutch, for our hostess was unacquainted with any language but her own and Malay, and our knowledge of the latter was hardly sufficient for conversational purposes.

The high elevation of Tomohon caused us to feel the night and early morning air almost too cold to be pleasant, and though the thermometer could not have been much, if at all, below 70° Fahr. we were glad of a thick blanket. We bade our kind host and hostess adieu after a cup of excellent coffee, and continued our journey. Nothing can be more absolutely neat and clean than these Minahasa villages. Indeed their perfection of tidiness would be almost irritating were it not for the beauty of the flowers and the tropical vegetation. The roads are ditched on either side, and beyond are the bamboo fences of the gardens, all aligned with the greatest care and regularity. Above them, topped down with whimsical preciseness to the same level, rise the hedges of coleus or holly-hock, according to the fancy of the cottager. Here and there the hedge is of climbing roses, but these are evidently considered too untidy to be adopted by the well-regulated majority. As I picked a bud, and looked over into one of the gardens, which seemed as carefully tended as that of a suburban villa, I felt it hard to realise the fact that the owner was what an Englishman, in the expressive language of his country, would term a nigger.

Just beyond the village of Tomohon the ground is swampy, and is given up to the cultivation of the Sagueir palm. To the wine obtained by the fermentation of its juice I have alluded on a previous

page, but it is also largely used for making sugar. This tree when young has a leaf-sheathed trunk of tolerable height, but when full grown the stem is straight and smooth at the base. Another palm, apparently a species of Borassus, was also growing in some abundance. About a mile farther on our road we came upon the first regular coffee-plantations we had seen in the hills. The trees were from twelve to twenty feet high, planted very closely together beneath a thin shade of tall, bare-stemmed forest-trees. There was an abundance of berries, many of which were turning red. The ground beneath was carefully cleared, but the trees themselves were in most instances covered with moss and small ferns. In other plantations we found a much better cultivation, the trees well pruned and planted at wider intervals. They were looking well, and there was no trace of disease of any kind.

After a slight ascent we rounded a sudden corner and the lake of Tondano lay below us, a beautiful sheet of water about eight miles long. The mist of the morning had cleared away, and the view was lovely. Northwards a long stretch of yellow padi field bounded the lake, which on the western side was shut in by steep hills clothed with thick jungle. A quick descent on a good road brought us to the little village of Tata-aran Tomohon—hardly longer than its name, and shortly before noon we drew up before a pleasant-looking house, the residence of the Kontroleur of Tondano, whose guests we were to be.

Our host was a very handsome man of about five and thirty, who had been specially appointed to the district by the Dutch Government on account of his knowledge of coffee-planting. We found him reading the "Revue des Deux Mondes," and soon discovered that his ideas were by no means exclusively centred in coffee. Keenly interested in European affairs, in politics, and in art, he proved a most pleasant companion, and, by his kindness and readiness to show us the district, made our visit a most agreeable one. In addition to his own language he spoke Malay, Javanese, and Tondano, besides English, French, and German.

The coffee-tree was first introduced into the Minahasa district in 1822, and thirty years later about five million trees had been planted. It has been the means of converting the country from a wilderness of jungle, peopled by head-hunting savages, into a well-cultivated garden tilled by natives who are almost without exception Christians. Yet this result has been brought about by a system which most Englishmen would condemn untried—that of enforced labour. Any person of the peasant class not having a trade is compelled by law to plant coffee. Each must, if required, plant twenty-five trees every year, but the number depends on his last year's production, and is regulated by the

Kontroleur, who can order him to plant more, or less, or none at all, according to circumstances. There are Government plantations in every village, and both the land and the seedlings are supplied by the State. The tree does remarkably well, being unaffected as yet by disease of any consequence, and gives two or three heavy crops in the year. This is in great measure owing to the equable rainfall, the north of Celebes herein differing greatly from Java, which is exposed to a long-continued drought during the easterly monsoon and excessive rains in the wet season. The berry is of particularly good flavour, and finds its market chiefly in Russia, fetching a far higher price than that produced in Java.

All the coffee thus grown by the natives has to be sold to Government at a fixed price. It is divided into two qualities, for which fourteen and seven guilders[1] are respectively paid per *picul* of 133 lbs. This price is, however, not all that it actually costs the Dutch Government, since presents have to be given to the head-men, and, as the money is paid for the produce on the spot, the cost of transit is very considerable. Of these two qualities the best is sold by Government at seventy guilders the *picul*. It is apparently entirely for export, as it is not to be bought in Menado, and the Government guarantee the quality, so that a European grower cannot obtain more than sixty guilders for the same article. The second quality, which is drunk throughout Minahasa, is so little inferior that it needs a connoisseur to detect the difference, yet it is obtainable for fifteen guilders.

The annual produce of the Minahasa district amounts to about 15,000 *piculs*—roughly speaking, 2,000,000 lbs. At the present time the industry is by no means so lucrative as it used to be, not from any failure in the crop, but chiefly from the fact that much money has been lately expended in opening up the country and making roads. Another reason lies in the scarcity of labour, which seems principally owing to the great mortality among the children. Thus it is not common for a woman to rear more than one or two children, yet they often bear eight or ten. The "Major" of Tomohon, for example, was the last of a family of thirteen. Our friend Mr. Van de Ven, the Kontroleur, ascribed this large infant mortality to a form of malarial fever which is said to be not uncommon in the low land in the neighbourhood of the lake, but it did not seem to me that this accounted for it satisfactorily. In Mr. Wallace's time the death-rate appears to have been equally high.

Should a Dutchman wish to plant coffee, he is permitted to do so, the system being only a Government monopoly as far as the natives are concerned. He is allowed to take up land at a rental of one guilder per *bouw*, and pays a head tax of a dollar on his coolies. The

[1] The guilder is nearly equivalent to the rupee; twelve and a half at that time making the English sovereign.

wages of the latter are six guilders a month, and a catty ($1\frac{1}{3}$ lbs.) of rice per diem. Every adult male is, however, compelled to give thirty-six days in the year to the service of the Government, for road repair and work of a like nature, or else to provide a substitute.

FRUIT AND FLOWER OF THE COFFEE-TREE.

Mr. Van de Ven told us a curious fact about the Minahasa coffee. There is an insect peculiar to the district—or at least not found in Java—which eats its way into the bean. The berries thus attacked are much esteemed for their flavour, and are picked separately and sold at a high price. We were unable to procure a specimen of this grub. Still more curious is a similar fact occurring in some parts of Java, for

the authenticity of which the Kontroleur vouched. A "species of wild cat" (probably *Viverra tangalunga*) is said to eat the berry for the sake of its fleshy pericarp. The bean remains undigested, and is gathered as a great delicacy.

That the languages of the Malay Archipelago are innumerable can nowhere be better realised than in the north of Celebes. Here, in a small tract of country sixty miles by twenty, more than a dozen are spoken. Some of these may perhaps be more or less dialectic, but the majority are said to be quite distinct, and the people of the different tribes cannot make themselves understood except through the medium of Malay, although, perhaps, their villages may be within three miles of one another. Lying as it does in such a central position in the archipelago, Celebes appears to have drawn its languages from several sources: from the Philippines, from the Malay Islands to the west and south, from the Papuan region, and, possibly, from some of the islands of North Polynesia.[1] But whatever may have been their origin, there is no doubt that at one time, not very long ago, there were three distinct and powerful tribes living in the neighbourhood of the Tondano lake, without taking into consideration others established on the east coast. They were the Tondano, Tonbulu, and Tonsaya,—the "men of the lake," "men of the bamboo," and "strangers." The Tonsaya lived to the south of the lake, and, as their name implies, were later comers, while the Tonbulu, so called from the legend that their ancestors sprang from a bamboo—inhabited Tomohon, which word has the same meaning. Until the beginning of the present century, or even later, these tribes were always at war with each other, and even now, although they are on perfectly friendly terms, no intermarriage ever takes place, and each man keeps to the villages of his tribe. This custom tends, of course, to preserve the type as well as the language, and Mr. Van de Ven told us that he could at a glance distinguish between individuals of the different tribes, but I was unable to do so myself. That it takes some little time to learn the alphabet of physiognomy among new peoples I knew from my own experience in other countries, but when once learnt the student probably wonders how he could have failed to discern what he now perceives to be strongly-marked characteristics. Similarities or dissimilarities, as noticed by a passing traveller, are as a rule of little value. To us the people of all these districts appeared pleasant-looking, and some of the women were decidedly pretty. The faces were broader, but less flat than the usual Malay type. Their contented look struck us greatly. Every one saluted us smilingly, but perfectly naturally and independently, and without a trace of cringing.

On Sunday we visited the church. It was a building of the most

[1] Wallace, "The Malay Archipelago," Seventh Edition, pp. 262 and 605.

severely simple style; a large, square, whitewashed room filled with pews, and with a print of Ecce Homo where the altar would have been in an English church. There was a congregation of about 450 people, who were listening attentively to the preacher—himself a native. The centre of the church was occupied chiefly by women; the back and sides by the men, but this arrangement was apparently optional. Mr. Van de Ven told us that when the Dutch missionary preached there were often as many as 700 people present. The increase in attendance had necessitated the construction of a new chapel, which was then nearly finished. The service in use was that of the Dutch Reformed Church.

Schools are also established in all these villages, and at Tomohon we had an opportunity of inspecting one. As far as appliances were concerned, it was superior to an English national school, but it was empty at the time of our visit, and we saw nothing of the teaching. The schoolmistress was a pleasant Dutch woman, who, in addition to two native languages, spoke English, French, and German. Before we left the Netherlands' India we began to feel almost aggrieved at meeting any one unable to converse with us in our own language.

The waterfall in the neighbourhood of Tondano is one of the lions of Celebes, although it must be confessed that there are no tourists to visit it. A small river about fifteen yards broad and four or five feet deep flows out of the north end of the lake, and after a rapid course of a mile through the richest vegetation, precipitates itself into a gorge—which must be six or seven hundred feet in depth—to reach the plain below, ultimately joining the sea at Menado. The river descends in a series of falls, of which the uppermost is alone accessible. It is not more than 100 feet in height, but the scene is one of great beauty owing to the luxuriant growth of vegetation around, tree-ferns and tangled masses of giant creeper hiding the perpendicular cliffs from view. Below, the stream dashes through a narrow, rugged gorge to another fall, which is invisible from above. The view from the plain beneath must be magnificent, but the descent offered such difficulties, owing to the thickness of the jungle, that we had to abandon it.

We spent three or four days very pleasantly in Menado, chiefly occupied in collecting in the beautiful plantations round the village. Nutmegs and vanilla were the most important crops, and the long black pods of the latter filled the air with a delicious fragrance as they lay drying on large trays round the houses. The nutmeg, which is a fine shrubby tree with polished dark green leaves, bears a yellowish, fleshy fruit not unlike a peach. When ripe it splits longitudinally, disclosing the scarlet network of mace within, which in its turn overlies an inner husk enclosing the nutmeg as it is known to us in Europe. Both nutmegs and mace are sent to the Singapore market, and it is essential that the latter should arrive before it has lost its scarlet colour and faded to

yellow, which is the condition in which it eventually reaches London. The nutmegs are shipped to Singapore in their inner shells, which are there removed before they are despatched to Europe.[1]

WATERFALL NEAR TONDANO.

It was in Menado that we made our first acquaintance with the Kanari nut—an event to be remembered, for when eaten fresh it is, I think, incomparably superior to any nut I ever tasted. The Kanari-tree grows to a very great height, and bears a fleshy fruit enclosing a

[1] *Vide* illustration on p. 425.

shell of extreme hardness—so hard indeed that it needs a heavy hammer to break it. Within are from one to three kernels, covered with a thin skin, and on this being removed the nut falls into a number of irregular flakes, snowy white, and of delicious flavour. The flesh of the Kanari is eaten by large pigeons, but the great Black Cockatoo of New Guinea (*Microglossus aterrimus*), by means of his enormously powerful beak, is able to open the nut itself. The labour is considerable, but the bird may be considered to be amply rewarded.

Our collections grew apace in this part of Celebes, one of the most noteworthy additions being a young bull Sapi-utan (*Anoa depressicornis*) which we obtained alive from a native. This animal, one of the many peculiar Celebesian forms, though considered by anatomists to be most closely allied to the buffaloes, has no great resemblance to any of the wild oxen, and is rather antelopean in appearance. The horns are short and rather slender, depressed, ringed at the base, and pointing nearly straight backwards; the body small but powerful; the limbs clean. The little creature, which appeared to be about two years old, and was very tame and tractable, was destined for the Zoological Gardens, but he never reach England, succumbing in the following year to the effects of a gale in the Bay of Biscay (*v.* p. 332).

Many of the birds of Celebes are of great beauty, although several of the more vividly-coloured forms met with in Borneo, Java, and the Malay Peninsula are wanting. Perhaps one of the most beautiful is a tiny Pigeon (*Ptilopus melanocephalus*), with shining green body and French grey head. At the nuque is a small black velvety patch, the throat and vent are bright yellow, and the under tail-coverts crimson. New Guinea is the home of many species of this genus, which are yet more brilliantly coloured. The plantations abounded with a species of Golden Oriole, bright green Lorikeets with scarlet heads (*Loriculus stigmatus*), and a Brush-tongued Lory (*Trichoglossus ornatus*), gay in a dress of dark blue, scarlet, yellow, and green. This last bird is the most western representative of a Papuan genus of parrots possessed of extensile tongues, with the tip formed by a bunch of fine filaments which are admirably adapted for sucking up the juices of the soft fruits on which these creatures live. Kingfishers were very numerous on the river and in the forest, and we obtained no less than ten different kinds during our stay in the north of Celebes. Temminck's Roller (*Coracias temmincki*) also fell to our guns,—a dark sapphire-coloured bird, with the head and upper tail-coverts of pale greenish blue,—especially interesting as an instance of discontinuous distribution, for no other Rollers are found in the Malayan region.

We had not succeeded in obtaining any of the curious Megapodes or Mound-builders, whose method of nesting we were very anxious to see, and accordingly we determined on visiting the islands and coast to

the north with that object. But before leaving Menado and the coffee districts, with their "iniquitous system" of management by the Dutch, I cannot forbear quoting Mr. Wallace's words[1] upon this subject, with which, so far as our limited visit permitted of a judgment, I confess I entirely agree :—

"No doubt the system seems open to serious objection. It is to a certain extent despotic, and interferes with free trade, free labour, and free communication. A native cannot leave his village without a pass, and cannot engage himself to any merchant or captain without a Government permit. The coffee has all to be sold to Government at less than half the price that the local merchant would give for it, and he consequently cries out loudly against 'monopoly' and 'oppression.' He forgets, however, that the coffee-plantations were established by the Government at great outlay of capital and skill; that it gives free education to the people, and that the monopoly is in lieu of taxation. He forgets that the product he wants to purchase and make a profit by is the creation of the Government, without whom the people would still be savages. He knows very well that free trade would, as its first result, lead to the importation of whole cargoes of arrack, which would be carried over the country and exchanged for coffee; that drunkenness and poverty would spread over the land; that the public coffee-plantations would not be kept up; that the quality and quantity of the coffee would soon deteriorate; that traders and merchants would get rich, but that the people would relapse into poverty and barbarism. That such is invariably the result of free trade with any savage tribes who possess a valuable product, native or cultivated, is well known to those who have visited such people; but we might even anticipate from general principles that evil results would happen. If there is one thing rather than another to which the grand law of continuity or development will apply, it is to human progress. There are certain stages through which society must pass in its onward march from barbarism to civilisation. Now one of these stages has always been some form or other of despotism, such as feudalism or servitude or a despotic paternal Government, and we have every reason to believe that it is not possible for humanity to leap over this transition epoch, and pass at once from pure savagery to free civilisation. The Dutch system attempts to supply this missing link, and to bring the people on by gradual steps to that higher civilisation which we (the English) try to force upon them at once. Our system has always failed. We demoralise and we extirpate, but we never really civilise. Whether the Dutch system can permanently succeed is but doubtful, since it may not be possible to compress the work of ten centuries into one; but at all events it takes nature as a guide, and is therefore more deserving of success, and more likely to succeed, than ours."

Wherever we went in Minahasa we found a contented, happy people, amongst whom drunkenness and crime were almost non-existent. The

[1] Wallace, *op. cit.* p. 256.

land was highly cultivated, the villages neater and cleaner than I have seen them in any part of the civilised world. Schools were established in every district, and the natives were almost without exception Christians. Where can we, who call ourselves the greatest colonising nation in the world, point to a like result? What is the condition of the natives in our colonies; in Australia, in New Zealand, in Western Africa? Year by year hundreds of Englishmen travel round the world, just as the former generation made the "grand tour." But they follow one another like sheep in the beaten track, and hardly any turn aside into the by-paths. It is, of course, almost an absurdity to suppose that an Englishman could have anything to learn from the management of another nation's colonies, but those who have not this idea too deeply rooted may visit Northern Celebes with advantage.

CHAPTER XIX.

CELEBES (*continued*).

Our collection of live birds and animals, which, at a later period of our cruise, almost turned the *Marchesa* into a floating Zoological Gardens, made its first real commencement in Northern Celebes. Here, in addition to the Cuscus—of which we had two or three specimens—and the Anoa, we became the possessors of several Fruit-eating Pigeons (*Carpophaga*), to which I shall presently allude, and four of the beautiful *Caloenas*, a ground-loving pigeon we afterwards obtained in the Moluccas, which from its long and pointed neck-hackles has at first glance almost the appearance of a gallinaceous bird. But the most interesting addition to our menagerie was a tiny Lemuroid animal (*Tarsius spectrum*) brought to us by a native, by whom it was said to have been caught upon the mainland. These little creatures, which are arboreal and of nocturnal habits, are about the size of a small rat, and are covered with remarkably thick, woolly fur, which is very soft. The tail is long, and covered with hair at the root and tip, while the middle portion of it is nearly bare. The eyes are enormous, and indeed seem, together with the equally large ears, to constitute the greater part of the face, for the jaw and nose are very small, and the latter is set on, like that of a pug dog, almost at a right angle. The hind limb at once attracts attention from the great length of the tarsal bones, and the hand is equally noticeable for its length, the curious claws with which it is provided, and the extraordinary disc-shaped pulps on the palmar surface of the fingers, which probably enable the animal to retain its hold in almost any position. This weird-looking little creature we were unable to keep long in captivity, for we could not get it to eat the cockroaches which were almost the only food with which we could supply it. It remained still by day in its darkened cage, but at night, especially if disturbed, it would spring vertically upwards in an odd mechanical manner, not unlike the hopping of a flea. On the third day it found a grave in a pickle-bottle, and was duly consigned to a shelf in the *Marchesa's* Columbarium.

Our destination on leaving Menado was Talisse Island, wrongly called Salicé on the English charts. It lies at the extreme north end of Celebes, and is distant some five and twenty miles N.W. from Menado. Lately some Dutchmen in the latter village have established a small plantation on it, and we were anxious to see the results of the venture, as well as to secure some of the peculiar Mound-builders or Maleos (*Megacephalon maleo*), which were reported to be found there in some abundance. We made for the southern point of the island, but

THE TARSIER. (*Tarsius spectrum.*)

our charts gave no indications whatever as to the depth of water, and on approaching the little island of Tindila, which lies immediately to the south of it, the passage between the two appeared so narrow that we hardly liked to try it. The southern and safer route would, however, have cost us another hour or two, so we decided in favour of the attempt. At the entrance we encountered a heavy tide race, running from six to seven knots, in which a sailing vessel would have been unmanageable, but putting the engines at full speed, we came through slowly without mishap and shortly after anchored in about fifteen fathoms on the eastern side of the island. This anchorage is really the best in this

part of Celebes, being more or less protected in both monsoons. It is without reefs, and a small stream of good water is accessible close to the beach.

We went ashore and introduced ourselves to the manager of the estate, a half-caste gentleman of the name of Rijkschroeff, whom we found reading a life of Dryden in Dutch! He was a most pleasant fellow, had been wounded in the Atjeh war, and had seen many vicissitudes. His life upon the island must have been lonely enough, but the neatness of his house and its surroundings showed that this had had but little effect upon his energy. From him we soon learnt the few facts of interest connected with the plantation. Cacao, coffee, bananas, and coconuts had been tried, and the former was doing well. The island, which is nearly seven miles long, and rises into a central lofty ridge about twelve hundred feet in height, supports a native population of 400 people, 150 of whom are engaged on the plantation. They are almost all of the Talautse or Sanghir tribes, and speak a language distinct from any found in Celebes.

Talisse was the haunt of numbers of the large Fruit-eating Pigeons, *Carpophaga radiata* and *C. paulina*. The latter is a fine bird, weighing a pound and a quarter or even more, and its metallic-green back shot with bronze, and a curious tawny patch upon the nuque, render it conspicuously handsome. The lower mandible of birds of this genus is capable of being expanded laterally to an enormous extent,—a special adaptation to enable them to feed on the various large fruits of the forest-trees. The size of those they manage to swallow is astonishing. I have found fruits nearly as large as a small Tangerine orange in their crops. The only other bird of interest that we met with on the island was a Glossy Starling (*Calornis neglecta*), a genus supposed by Mr. Wallace to be absent from Celebes.

Mr. Rijkschroeff told us that there were but a few Maleos upon the island, so after a couple of days' stay we left for Likoupang, a village on the mainland about ten miles to the south. Our host accompanied us, together with a native who was supposed to have a good knowledge of the coast, and who, when a child of six, had been rescued from the pirates of Illanun. We found the anchorage a tolerably good one, though with many surrounding reefs and sandbanks, and lay about a mile off the mouth of a little river, on the banks of which the village is situated. Huts were too plentiful in the surrounding forest for us to expect to obtain either the Anoa or Babirusa, so we made arrangements to visit Maim Bay—an uninhabited part of the coast four or five miles farther east—having previously asked the chief for men to act as guides. We embarked in the lifeboat and two native praus on the evening of September 8th, and after a rather unpleasant passage, owing to the frequent squalls from the land, arrived at our destination at midnight,

and finding a ruined attap-shed, spent the remainder of the night beneath its shelter as comfortably as the unceasing attacks of sandflies and mosquitos would permit.

The Hukum Kadua—in other words, the chief—had himself accompanied us, as being one of the greatest sportsmen of Likoupang, and we left him to settle the plan of action. It was simple enough, being merely what a Dutchman would term "be-creeeping" the animals, the ground by its conformation not lending itself to beating, especially with our limited number of native followers. Accordingly each of us took the bush separately, attended by two men, one of whom went in advance, clearing a path through the creepers by means of his razor-edged kris, while the other followed, bearing our lunch of biscuit and coconuts. I have seldom seen a finer forest than that in this neighbourhood. The buttressed trees were magnificent. One especially, which seemed to be quite familiar to my guide, who had often hunted the Babirusa in these jungles, struck me as being the largest I had ever met with. The buttresses sprang from the trunk fully thirty feet from the ground. On one side two had grown at right angles to one another, and one of them turning sharply again at a right angle, a sort of walled enclosure was formed, which might with very little difficulty have been turned into a hut of respectable size. The thickness of the foliage around only permitted us to see that the tall, straight trunk rose at least a hundred feet before sending off a branch. What the entire height of the tree might have been it was impossible to estimate, for less than a dozen yards away this giant of the forest was completely invisible.

The rattans, of which the natives told us there were nine or ten species here, formed the chief obstacle to our progress. This climbing palm is one of the chief characteristics of a Malayan forest, and its sharp, hooked thorns bring the traveller to a standstill as effectually as the *wacht-een-bietje* of Southern Africa. Starting as a trunk as thick as a man's leg, it winds erratically through the forest, now wrapping a tree in its folds like some gigantic snake, now descending again to earth, and trailing a sinuous course along the ground. This sub-arboreal growth, however, is unnatural to it, and has probably only been produced by the fall of some tree to which it has been attached. Like everything else, it is striving upwards for the light and air, and, if it were possible to follow the windings of any one particular palm, its terminal spike would in all probability be found shooting up like a miniature flagstaff a dozen feet or more above the summit of the trees. A thick layer of dead leaves covered the ground, some of them of enormous size. As these fell, striking from time to time against some bough, they made a clattering sound audible at no little distance in the airless forest, and on the ground their dry condition when newly fallen

rendered noiseless walking a matter of considerable difficulty. Some were blood-red in colour, but for the most part there were few departures from the varying shades of green in which every Malayan forest is clothed. Large *Raphidophoræ* and other dendrophilous plants swarmed up the tree-trunks and shrouded them with their fleshy, fenestrated leaves, and here and there, in damp localities, deep beds of various species of Selaginella covered the ground. As we were in quest of nobler game we left the birds unmolested, but numerous hornbills tempted us to add them to our collection. These birds (*Cranorrhinus cassidix*) are of large size, measuring as much as three feet six inches in length, and their plumage, although not brilliant, is atoned for, as far as regards colour, by the orange-yellow of the gigantic bill, and the bright cobalt-blue bare throat. They confine themselves usually to the tops of the highest trees, and are consequently difficult to shoot. When taking to flight their wings make a noise which is really much like the starting of a locomotive—as described in the imaginary travels of "Captain Lawson" in New Guinea—a series of loud puffs increasing in quickness as the bird gets fairly on the wing. Their note when disturbed resembles the single bark of a dog—*wow; wow; wow*—and is audible at a great distance.

We saw plenty of spoor and droppings both of the Babirusa and Anoa, and before long came suddenly upon two of the latter animals. Their appearance, however, was only momentary, and I did not catch sight of them myself. Very shortly afterwards we disturbed a Babirusa much in the same way, and it was evident that, in spite of our precautions as to noiseless walking and the sharp eyes of the natives, our game had decidedly the advantage of us. The forest had occasional little muddy clearings about forty or fifty yards across, which appeared to be the favourite haunts of these animals and wild pigs, and at one of these I at length obtained a shot—the only one that offered throughout the day—and secured a nearly full-grown specimen of *Sus celebensis*, a species which, like most of the Celebes mammals, is peculiar to the island.

I ate my tiffin beneath a gigantic *pokok sila*, as the natives here call the *Livistonia rotundifolia*, the most magnificent palm of the Eastern tropics. Like the aloe, it flowers only to die. The trunk of this one, nearly two feet and a quarter in diameter, rose like an arrow for at least 140 feet, bearing little at the crown but the dark inflorescence and a few dead leaves. A leaf of the same species, circular and with deeply-toothed edges, formed my seat, and as I extended myself at full length upon it to search the summits of the trees above me with my glasses, there was at least a foot to spare at my head and feet. These leaves are much used for thatching by the natives, and, I daresay, for a dozen other purposes undreamt of by the European, to whom the

infinite possibilities of palms and bamboos are unknown. Were he to visit these jungles he would learn another, and far more pleasant use of the rattan than that with which, as an erring schoolboy, he may have become acquainted. A piece of this, six or eight feet long, will supply a good tumblerful of pure water, and the traveller in the Malayan Archipelago, however much he may suffer from the thorns of the tree in passing through the forest, has the consolation of knowing that he can quench his thirst from it at any moment.

We saw no further sign of game, and, making a detour, struck the sea and marched back to camp along the beach, which glared in the afternoon sun as only a tropic beach can glare. There is never any lack of life along such shores, however hot the sun may be. The little pools of water and the huge tree-trunks that have been washed ashore would prove a paradise for the marine zoologist. As we pursue our way hundreds of the little Land-crabs (*Gelasimus*) dart away in every direction, their single large claw uplifted. Enormous numbers of them may sometimes be seen congregated around some dead fish or other dainty morsel washed up by the tide, or gathered on the slimy ooze beneath the arching roots of the mangroves, the neighbouring banks being honey-combed with their holes. They are the most striking feature of the seashore, with the exception perhaps of a bull-headed, gudgeon-like little fish (*Periophthalmus*), which lives, apparently, as much out of the water as in it, and startles the pedestrian by hopping out beneath his feet and making for the nearest water by a series of sudden jumps. This curious method of progression is apparently effected by the action of the pectoral fins, and is so rapid that it is only with great difficulty that the fish can be caught.

On reaching camp I found that one of our party had been fortunate enough to secure a male Babirusa.[1] It was a good specimen, although not very old. From tip to tip it measured 58 inches, of which 12 had to be deducted for the length of the tail. The greatest girth of the chest was 39 inches, the height at the shoulder 29 inches, and the upper and lower tusks measured respectively $7\frac{3}{4}$ and $4\frac{3}{4}$ inches round the curve.

The Babirusa, according to the natives, generally has one or two young at a birth; more often one, but sometimes, though rarely, three. They are born in the months of November, December, and January, and the sow makes a small underground hole for their reception, lining it with leaves—generally of the Livistonia. The young, however, are able to move about on the second day of their existence. We were told that they were of two colours—nearly black and light brown—and

[1] A Malay name; *babi* meaning pig, and *rusa* deer. The animal is, of course, a true pig, and has only acquired its second name from the peculiar hornlike growth of the tusks of the upper jaw.

that the female can have young of both these colours just as a sow has black and white pigs, a statement which, if true, is very curious. These colours were said to approximate with age, but the natives spoke of "white" and "black Babirusas" even in the adult stage, and the one I have just mentioned was certainly lighter in colour than others we afterwards killed on Limbé Island. Our hunters also told us that, when assailed by dogs, the animal sometimes ascended the procumbent trunks of trees, and got out upon the large lower branches,—a story which, it is almost needless to say, we entirely disbelieved. A week or two later, however, we ourselves actually saw a Babirusa attempt, though only partially succeed in, this feat, as I shall have occasion presently to relate.

Chatting over these subjects naturally led us to talk of the Sapi-utan,—the only other game of any size found in the forests of Celebes. It has one calf only, which may be born at any time of the year. Before the teeth are grown the young are reddish yellow in colour, but in the adult the hair is brownish black. The horns of very old males are sometimes as much as two feet in length, and it is said to be possible to distinguish the age by the number of rings at the base. The female also has horns, but they are small, and seldom more than six inches long.

We spent two or three days at Maim Bay without shooting anything except wild boar, and adding a few species to our collection of birds, and, as it did not appear a particularly good locality, we arranged to return to Likoupang and proceed farther along the coast to a beach where, some years before, Mr. Wallace had succeeded in obtaining many of the Brush-turkeys or Maleos, in search of which we had hitherto been entirely unsuccessful. On arriving at the village we found that a dance had been got up to welcome our return, apparently at the instigation of our friend Mr. Rijkschroeff. There were no Dutch in Likoupang, and the guests consisted almost entirely of half-castes, known in many parts of Malaysia as the *orang sirani* or Nazarenes, a term which seems to include all those descended from white parents whether Dutch or Portuguese. They correspond more or less to the "burghers" of Ceylon, but differ socially in forming, here at least, the upper stratum of society. Mr. Wallace has noticed[1] the occurrence of Portuguese words among the natives of Amboina and the Ké Islands, and I was astonished to find several traces of this language —with which a previous residence in Madeira had made me tolerably familiar—in Likoupang, although I was unaware at the time, and have not since been able to discover, that the Portuguese ever had a settlement in this part of Celebes. The dance was held in a roomy apartment in the largest house in the village, and five and twenty or

[1] *Op. cit.* pp. 300 and 425.

thirty people were present. The gentlemen, dressed in black jackets and white trousers, occupied the verandah, and on the music striking up went in search of their partners, who, wearing Malay dress, sat inside round the ballroom. Some of the latter were decidedly pretty, but it was altogether a new sensation to dance with a *sarong*-clad young lady whose stockingless feet were protected only by Turkish slippers. Their upper garments were of lace-edged linen,—garment, however, I ought to say, for in most cases one only was worn. In the rare instances where there were two the *kibaya* was transparent, and revealed another garment bordered with "insertion" trimming. Polkas, a species of quadrille, lancers, and mazurkas formed the programme, and the dance was kept up until two or three o'clock in the morning.

Mr. Rijkschroeff was obliged to return to Talisse Island next day, but the Hukum Kadua, the pilot, and several natives went on with us to the nameless beach where, in 1859, Mr. Wallace camped and observed the curious habits of the Maleos. It was not difficult to find the place,—a shallow bay some ten miles across. At the head is a steep beach of very coarse black sand, a couple of miles in length, bounded at each end by high ground and by the dry bed of a stream. We crept slowly in, but altering our depth very rapidly from 45 to 12 fathoms, we thought it best to anchor, although nearly half a mile from shore, as we had no desire to repeat our Menado experiences, and the coast was, of course, entirely unsurveyed. We afterwards discovered that our caution was unnecessary, and that we could have carried six fathoms almost to within stone's throw of the beach. It was at once evident that we had hit upon the right place, for numbers of the birds could be seen vigorously digging on the shore, and with our glasses we could distinguish their every movement.

It was not long before we were in pursuit, and not long either before we discovered that the birds were by no means so easy to bring to bag as we had anticipated. Sinking above our ankles at every step in the loose gravel, and perspiring beneath the rays of a blazing sun, we ploughed wearily along, while our quarry trotted lightly into the jungle a couple of hundred yards ahead of us. The bush was too dense to admit of our taking them in flank, and it was only after some hours' hard work and manœuvring that we succeeded in shooting two birds before we returned to the ship. We were disgusted with our failure, and feared that we had disturbed the birds so effectually that they would not return to their haunts for some time to come.

Next morning, however, we could see them digging away in undiminished numbers, and landing shortly after daybreak, we accidentally hit upon the only successful plan of shooting them, which is to approach as near as possible without being seen, then suddenly to run in upon them, shouting, waving one's arms, and firing. The birds,

instead of running away, take to flight, and perch almost immediately upon the trees at the edge of the beach. The perspiring sportsman can now rest himself to recover his breath and shake the gravel out of his putties, and, reloading his gun, may take matters as leisurely as he pleases; for, once in the trees, the Maleo seems to consider itself secure from all danger, and can be shot without even putting to flight a fellow victim on the same branch. There is, of course, no sport in the matter, but to obtain a good series of skins, and to supply our party with as much of the delicious meat as we could get, overpowered such considerations.

The Maleo (*Megacephalon maleo*) is about the size of a small turkey, being twenty-four inches in length, and having an average weight of 3 lbs. 8 oz. Of a large series we obtained the lightest was 3 lbs. 1 oz., the heaviest 3 lbs. 14 oz., but the weight of the hen birds varies according as an egg has or has not been just laid, for the latter is enormous, and quite disproportionate to the size of the bird. Male and female are alike in plumage, or, at least, so closely resemble one another as to be difficult to distinguish. They are of an entire brownish black, with the exception of the breast and under parts, which are of a beautiful rosy pink or salmon colour. The head, throat, and neck are bare of feathers, and the occiput is furnished with a large casque, which in the female bird is slightly smaller than in the male. The bill is bright pea-green, blood-red at the base. From our anchorage, which was immediately opposite the beach where the birds were incessantly engaged in digging, we had abundant opportunities of watching them. Their gait is slow and stately, and the tail is kept much elevated and slightly spread, but even on the loose gravel they can run with tolerable quickness,—sufficiently fast, at all events, in spite of their weight, to outstrip a man with ease. When once on the hard ground of the jungle, they dart off with lightning-like rapidity.

Sole representative of its genus, the Maleo is peculiar to the island of Celebes. It belongs to the family of Megapodes or Mound-builders, —gallinaceous birds which are eminently characteristic of the Australian region,—but it differs from them in its habits by using the gravel of the sea-beach alone to hatch its eggs, instead of constructing a mound of sticks, sand, and leaves, as do most of the Australian and Papuan "brush-turkeys." At a certain season of the year[1] the birds come down in large numbers from the forests of the interior to the sea, almost always to fixed localities as clearly marked as a fur-seal's "hauling-grounds." Here they remain during the breeding period, and may be seen from dawn till sunset busily engaged in laying and covering their eggs. The breeding-grounds at Wallace Bay, as we

[1] Mr. Wallace ("Malay Archipelago," p. 265) says "the months of August and September," but, according to the natives, the period was much more extended.

called the hitherto nameless beach off which we were anchored, extend for a distance of two miles and a half along the shore, and, as that distinguished naturalist has remarked, define accurately the limits

THE MALEO. (*Megacephalon maleo.*)

of an ancient lava stream, for the forest behind is deficient in large trees, and on either side the shore is of white coral sand, not, like the nesting-ground, of fine black gravel. Immediately above high-water mark is a strip of beach about forty yards in width, and on this little

groups of birds, from two or three up to ten or a dozen in number, are always to be found at work. No regular mounds are made, but the beach presents a series of irregular elevations and depressions which in appearance I can compare to nothing better than the surface of a rough, confused sea. As in the case of some other of the Megapodes, the nests appear to be used in common by many of the females, or, more probably still, the bird lays its egg on any part of the beach that suits its fancy. The natives would never look for eggs at the bottom of the deepest depressions, or on the summit of a mound, but shallow trenches and the slopes of the irregular hummocks seemed to be always preferred in searching for them. Although we personally found it extremely hard to discover them, our men were adepts in the art. The method is gently to probe the gravel with a fine stick. Where the egg has just been covered this is, of course, much looser, and the stick passes in readily. The gravel is then scraped away, the stick again used to make certain of the direction, and finally the egg is disinterred, often at the depth of a yard or more below the surface. The heat of the beach, on which the sun is always shining, is considerable.

To the size of the egg I have already alluded. It is four inches and a quarter long by two and a half in breadth, and weighs from $8\frac{1}{2}$ to $9\frac{1}{2}$ ozs. On dissecting a bird the next egg is found to be about as large as a cherry, and it is probable that some days elapse before it is ready for extrusion. As far as can be judged from an inspection of the ovary, about sixteen or eighteen are laid during the season. In colour they are of a pale reddish buff, resembling the eggs of the black Cochin-China fowl, and their flavour, though rich, is excellent. During the operation of covering them with the loose black sand on which they are deposited, the cock bird digs as well as the hen, and it is a most curious sight to watch them at work, the sand being thrown up in perfect fountains at each stroke of the powerful foot. The Maleo does not scratch in the same way as the common fowl,—two strokes alternately with each foot,—but, poising himself on one leg, gives several rapid digs with the other, and the large foot, broad-soled and slightly webbed at the base of the toes, is nearly as effective as a man's hand would be.

That the abnormal size of the egg is closely connected with the nesting habits of the Maleo there can be no doubt, but it seems to me that Mr. Wallace's theory—that the instincts of the bird have been made to suit its unusual ovulation—is an improbable one, and that it is more reasonable to suppose that the latter is dependent upon habits which have doubtless been adopted for the preservation of the species. In a country such as Celebes the eggs of large ground-nesting birds would be exposed to much risk. But buried beneath a layer of sand, or within a mound such as is constructed by *Megapodius*, they are safe

from the attacks of depredators. As I have already mentioned, the depth at which these eggs are found is often three feet or more. If the weight of a superincumbent mass of gravel of this thickness be taken into consideration, it will be seen that it must be such that no chick of ordinary size could force its way through it to the surface, and hence it appears to me far more probable that the strength and enormous size of the egg are adapted to the peculiar nesting habits of the species, rather than that the unusual nidification is due to an aberrant reproductive organisation.

We spent three days at Wallace Bay, and obtained no less than forty-two Maleos, of which we preserved a large series. We also shot a rare Kingfisher (*Ceycopsis fallax*)—an exquisite little species, the head spotted with bright blue and the back a brilliant ultramarine. The peculiar Baboon-like Monkey (*Cynopithecus nigrescens*) was very common in the forest, swinging from bough to bough at the tops of the trees in small flocks. It is also found in the island of Batchian, but it is supposed by Mr. Wallace to have been introduced there by man, and to be really peculiar to Celebes, an island which is remarkably rich in isolated forms. Hitherto we had not succeeded in meeting with the Anoa, and had only shot a single specimen of the Babirusa, and hearing that Limbé, an island lying close to the extreme eastern point of Celebes, abounded in these latter animals, we determined on visiting it, first calling at Kema, a village on the mainland just beyond it, in order to pick up some natives to help us in our expedition.

We weighed anchor on the 14th of September, but encountered such a strong head wind and sea on rounding the northern point of Limbé Island that we decided on anchoring in the straits formed between that island and the mainland—a narrow passage about nine miles in length. The northern entrance is rather striking from the bare and desolate appearance of Verbrandte Hoek, as the Dutch have called a small crater that has opened on the eastern slope of an unnamed volcano at the north end of the strait. It is a cone of ashes of regular shape, whence a small lava stream has issued, carving its way through the forest to the sea. That it is of quite recent date is evident, for the ashes and lava are devoid of all vegetation save a few patches of coarse grass. Visiting it a few days later we found that burnt trees were in many instances still standing in the lava stream, so charred at the base of the trunk that we could easily push them down. The cone, which is entirely composed of loose ashes, is distant about a mile and a half from the sea, and its summit has an altitude of rather over 1600 feet. Beyond this desolate scene rise the Gunong Sudara, twin volcanic peaks of bold outline, and still farther to the south-west the summit of Klabat—6700 feet in height—overtops them. The narrowness of the strait, the high and rugged peaks of Limbé, and

the luxuriance of vegetation, combine to make the view a very fine one.

The Dutch charts of this place, although sufficiently good to make the passage with,[1] are of little use otherwise, and we had some difficulty in anchoring. This operation among the coral reefs and islands of the Eastern Archipelago is often a very ticklish one, but before long we all got accustomed to letting go our anchors in thirty fathoms or more, within stone's throw of the beach. Two hawsers were always aft in readiness to make the vessel fast on shore, and Jack of course was equally prepared with some time-honoured joke about "tying her up to a tree." In this instance we were even nearer the shore than usual, and might with ease have shot birds in the branches of the large trees which overhung the water. In this part of the world there would be little difficulty in performing Timothy Tailtackle's exploit in "Tom Cringle," and exploring the forest from the rigging!

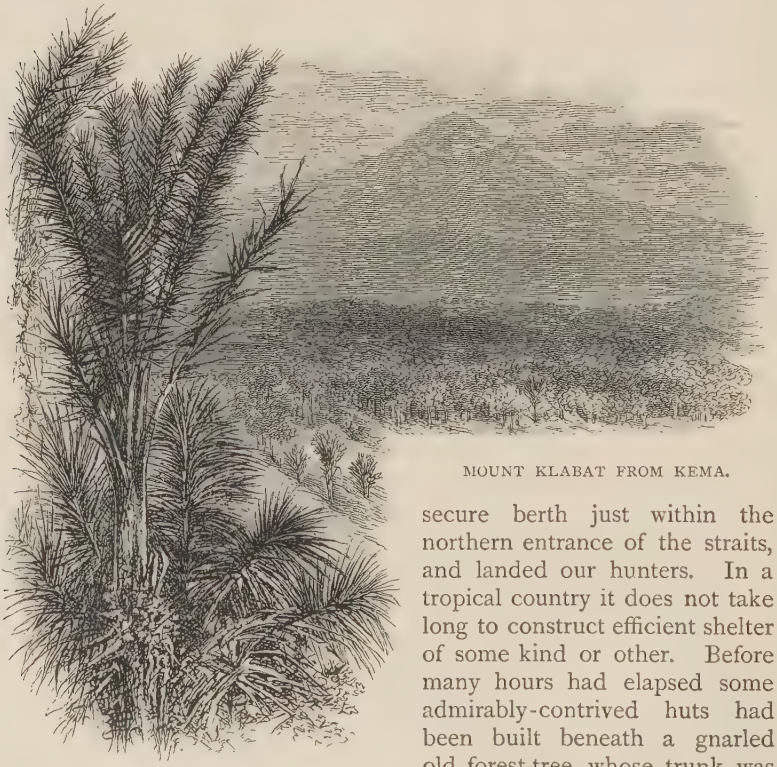
The wind continued to blow for two days so strongly from the S.E. that, knowing the exposed nature of Kema roads, we thought it better to remain where we were. Even in the straits it blew sufficiently hard to make boat-sailing both dangerous and unpleasant. Two of our party crossed to Limbé in search of Babirusa, but were unsuccessful, and the only object of interest noticed was a small cliff said to be of chalk, curiously localised, and forming a conspicuous landmark.

We anchored in Kema roads on the 16th of September. The village, spread thinly along the shores of a shallow bay, is laid out with the usual neatness of the Dutch. It is hemmed in by marshes at the back, but is said, nevertheless, to be extremely healthy. For some little distance inland the country is flat, more or less cleared, and dotted here and there with palms. Six miles north-north-east is Klabat, a noble-looking mountain of regular shape, whose steadily-rising slopes give it an appearance of more than its actual height. There is not much coffee cultivation in the immediate vicinity of the village. Kema is in reality merely a complemental port of Menado, according to the prevalent monsoon. From April until November ships anchor off the latter place, which is quite protected from easterly and southerly gales, while from November to April the anchorage at Kema alone is used. Notwithstanding the season, however, we found two craft at anchor in the roads. One of these, a schooner, was taking cattle to Ternate; the other, a small barque, had just brought 300 tons of coal from Sourabaya. There is but little trade in Northern Celebes, for, despite the march of civilisation, the wants of the people appear to be but few.

The Kontroleur of Kema, to whom we had already sent letters

[1] The strong tides and violent and uncertain winds prevalent in Limbé Strait render the passage unsafe for sailing ships and vessels of large draught, but there is good anchorage and shelter in its southern part.

overland, was fully prepared with native hunters, and having collected nearly fifty, we took about half that number on board the yacht, and despatched the rest in praus to Limbé Island, whither we ourselves followed next day. Anchoring was attended by the usual difficulties, which were in no way lightened by foul and rocky ground and an absence of any chart to aid us, but we eventually found a tolerably



MOUNT KLABAT FROM KEMA.

secure berth just within the northern entrance of the straits, and landed our hunters. In a tropical country it does not take long to construct efficient shelter of some kind or other. Before many hours had elapsed some admirably-contrived huts had been built beneath a gnarled old forest-tree, whose trunk was clothed with masses of fern and vegetable parasites, and, having fixed roofs constructed of the large leaves of the Livistonia, the natives departed for a certain spot known to them about two miles farther to the north, which was destined to be the scene of operations.

The hunt was to be carried out upon *keddah* principles, dependent upon the fact that the island here contracts to a narrow isthmus barely a hundred and fifty yards across, instead of being, as represented in the Dutch and English charts, about two miles in breadth. It was arranged to bar this neck of land across as far as it was possible to do so, and to

OUR HUNTERS' CAMP, LIMBÉ ISLAND, CELEBES.

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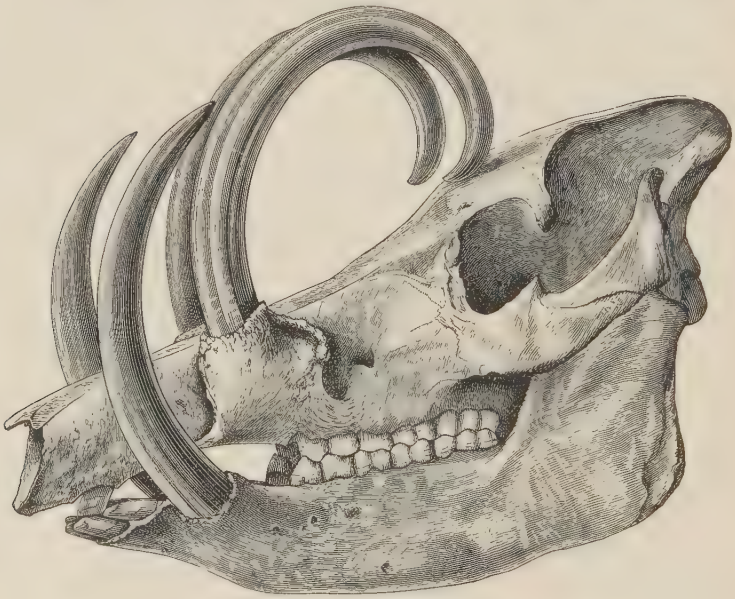
beat towards it from the north end of the island, a distance of nearly three miles. On the third day the preparations were complete, and we started soon after daybreak in the boats to sail up the straits to the spot where the *keddah* had been built. It was blowing hard from the southward, with an uncomfortable sea running, and when about a mile from our destination an accident occurred which in any other of our boats would have been a serious affair. We had not all shifted our places before gybing, and a little stronger puff happening to catch us just at the moment, we were swamped in an instant. Fortunately the water-tight compartments with which the boat was fitted sufficed to keep her afloat, and getting her head to wind and throwing overboard our ballast, we managed at length to reduce the water by baling hard with our helmets, and eventually got ashore without further misadventure. Occurrences such as these are apt to interfere with accuracy in shooting, and we were not sorry to learn that we should in all probability have few opportunities of using a rifle. Two of us, from exposure to the wind in wet clothes, were afterwards attacked by malarial fever, which in one instance was of unusually severe type.

Landing on a rocky beach we scrambled up a steep cliff about eighty feet high, and a few yards inland found ourselves on a small ridge which formed the backbone of the isthmus. From here the ground fell away in a gradual slope to the eastern shore of the island, which was not much more than a hundred yards away, and the open character of the forest allowed of any passing game being seen almost at that distance. The natives told us, however, and, as it proved, quite correctly, that almost all the Babirusa would come along the ridge, and acting on this knowledge, the "curral" had been constructed on its flat summit, its V-shaped mouth embracing the ground from the steep cliff to the commencement of the slope on the eastern side. Just at this point a gigantic mahogany-tree had been felled, and on its prostrate trunk a sort of grand stand, built of rough logs and elevated six or eight feet from the ground, had been erected for our benefit. A stout, large-meshed net blocked the small gap intervening between the foot of our tree and the "curral," and adown the slope a line of netting of a somewhat finer kind stretched to within thirty yards of the eastern shore. This part was left entirely unguarded.

We had plenty of time to wait before the sport began, and meanwhile the natives arranged themselves at their posts. One stood at the door of the "curral" ready to close it directly any animal rushed in, others took up their places on either side of the wide entrance, while the remainder crouched in front of the long net at intervals of a few yards, each grasping his spear, and hidden from view by a huge Livistonia frond planted in the ground before him. We had not long been settled before a peculiar barking grunt in the distance announced the arrival of

the first victim. Every one was instantly motionless, and directly afterwards a dark object dashed up at great speed and buried itself in the net a short distance down the slope. The staking had been purposely left loose, so that the animals should not be barred by, but become entangled in the net, the top of which was instantly pulled over by the nearest native. There was a short struggle, and in less than five minutes the captive—a full-grown female Babirusa—was quietly



SKULL OF BABIRUSA. (*Sus babirusa.*)

reposing on her back with her legs tied together with rattan, and we were once more in ambush for the next comer.

We were hardly quiet before the same peculiar sound was heard rapidly approaching, and the next moment a magnificent old boar Babirusa rushed past within five yards of us, and plunged into the net between our tree and the entrance to the "curral." His long tusks became entangled in the meshes, and the natives ran up to spear him. Just at this moment, however, he broke loose, and turning on his antagonists, scattered them in all directions. It was a most determined charge, and, as we were unable to fire for fear of hitting some of our men, it might have proved a serious affair for the native he singled out. Luckily a convenient tree was close at hand, and the man lost no time in taking advantage of it. The Babirusa pulled up at the bottom, and,

to our intense astonishment, proceeded to verify the statement made to us by the Hukum Kadua at Likoupang, by trying to scramble up the sloping trunk after his antagonist. How far he could have ascended we unfortunately never had the opportunity of knowing, for he had hardly got his feet off the ground before his progress was stopped by a ludicrous incident. Anxious to escape, the man had got too far out upon a branch. It gave way, and the unlucky hunter was suddenly deposited on his back within a yard or two of the formidable, needle-pointed tusks of his adversary. Fortunately for him, the attention of the latter was diverted by another native, whom he immediately charged. The man stood his ground in the most plucky manner, crouching, and receiving the charge at the point of his razor-edged spear. It entered just in front of the shoulder, and although nearly knocked over by the shock, he contrived to keep the animal off for the few seconds necessary for his companions to run to his assistance. Even with four spears buried in his body the old boar died game, striving to the very last to get at his antagonists.

This incident was the *clou* of the day's proceedings, for we killed nothing of any importance afterwards. A small pig was safely "curralled." and a little later another charged the net simultaneously with a female Babirusa. The latter was secured alive, but the pig escaped, as did another Babirusa, by getting through the net. The drive was ended by the successful "curralling" of a second pig, and in half an hour's time the beaters arrived. They had speared a wild boar and a young pig *en route*, but the breadth of the island had allowed a considerable quantity of game to break back. Counting our bag we found that we had one boar and two sow Babirusa, and a wild boar and three pigs, which, added to the game our natives had speared on the preceding day, made a total of ten head, six of which were wild pigs and four Babirusa.[1]

We returned to Kema on the following day, and having paid off our hunters, again weighed anchor, with the intention of proceeding up

[1] The large male Babirusa we killed was a dirty fleshy grey in colour; the whole body devoid of hair, excepting at the very tip of the tail, where there were twenty or thirty stiff bristles about two inches in length. The surface of the body was covered—thickly on the back, but scantily elsewhere—with very fine yellowish down, about an eighth of an inch in length, which was peculiarly soft and velvety to the touch. The measurements (in inches) of this animal and a full-grown female were as follows :—

	Male.	Female.
Tip of snout to eye	9	7½
Eye to meatus of ear	3½	3½
Tip of snout to root of tail	47	40
Length of tail	13½	12
Girth at shoulder	39	33
Height at shoulder	27½	25½
Lower tusk	7	
Upper tusk	14½	
Weight	128 lbs.	85 lbs.

the Gulf of Tomini or Gorontalo to the village of the latter name, which is situated on its northern shore. When off Cape Flesko, however, we encountered a strong current setting out of the gulf, which, combined with a stiff south-westerly breeze, decided us to run in towards the coast. Closing the land in the immediate neighbourhood of the cape, we made out the entrance of two bays, unmarked in the charts, which seemed likely to afford such good shelter that we resolved to explore farther. We steamed slowly ahead, the lifeboat preceding us to take soundings, and passing between the mainland and some islands, steered north for the entrance of the easternmost inlet. We were not disappointed in our expectations, for on entering we found ourselves in a beautiful little bay affording perfect shelter from every wind. East and west two secondary inlets stretched back, apparently free from shoals, and choosing the latter of these we anchored in twenty-five fathoms about four hundred yards from shore, the water of the bay being as smooth as glass. It was by far the best anchorage we had met with on the coast of Celebes.

Around the bay steep hills rose picturesquely, from a thousand to fifteen hundred feet in height, clothed in thick vegetation to their summits. A belt of yellow sand bordered the forest, and opposite our anchorage a little patch of Nipa palms revealed the presence of a stream of fresh water. Tracing this up we found a narrow ravine down which the little rivulet leapt clear and sparkling from rock to rock, half buried here and there in a wealth of greenery. No trace of human habitation, past or present, was to be seen. Seldom, even in these nature-favoured islands, have I seen a more pleasant spot, and if any of us had a desire for a Robinson Crusoe life, it might doubtless have been passed as comfortably here as on Juan Fernandez. There is something wonderfully fascinating about these places. London with her crowds and misery; the squalor and teeming population of the vast cities of China, seem almost to belong to another planet. Yet one thinks more about them under such circumstances perhaps than one would elsewhere. Surely, so long as the world has places such as these, where the foot of man has rarely trod, rich in soil and natural products, waiting only for the cultivator to give birth to a harvest, the want and misery that meet us at every step in the crowded cities of Europe should not occur. Surely, if we wish to relieve that want and misery, we can do so only by adjusting our population. England has land enough and to spare in every quarter of the globe waiting for willing hands to work it, yet it seems as if we were ready to attempt any solution of the difficulty rather than the only and most obvious one.

We left our bay—of which we made a sketch survey[1]—by the

[1] Admiralty chart, No. 930. The Dutch charts—as also the English, which are copied from them—are quite unreliable for the coast line in this neighbourhood, for

same track, and proceeded for Gorontalo. The coast in the neighbourhood is bare and rather lofty, and the Gorontalo River has cut its way through it so abruptly that from seawards the entrance looks like a deep ditch. Nearing it, this appearance becomes still more marked, and the place reminds one strongly of Jamestown in St. Helena, though the little river here usurps the place of the valley thickly dotted with white houses. The anchorage, which is just within the river's mouth and entirely unprotected to the south, is, as usual, a bad one, and the soundings drop suddenly from twenty or thirty fathoms to as many inches. A small Dutch brigantine which we found loading with copra had fourteen fathoms of water at her bow, and thirteen feet over the taffrail, and we had to anchor with the usual hawsers made fast astern.

The Dutch have had a settlement in Gorontalo for nearly as long a period as they have held Menado, but it has been left pretty much to itself, and, excepting copra, little besides natural products—gum copal, tripang, wax, and tortoiseshell—are shipped. The town lies a mile and a half above the anchorage, and though possessing the ever fresh beauty common to all Dutch Malayan settlements,—its houses buried amid luxuriant fruit-trees, its pathways neatly bordered with bamboo hedges,—it has little else to show, with the exception of some ruinous and moss-grown walls, which are said to have been built in bygone days by the Portuguese. There are a bare half dozen of Europeans in this far-away sleepy hollow, and among them, as a matter of course, is the inevitable German. He is to be found wherever "dark continents" have been penetrated by the white man, and is as invariable a sign of advancing civilisation as an empty sardine tin, a missionary, or a broken Bass bottle. Most of us know that he bids fair to take the trade out of our hands in the Chinese ports and in many of our colonies, but he does not confine himself to the British flag. After leaving Batavia not an Englishman is to be found in the whole of the Netherlands India, but there are Germans at almost every settlement. Although personally often the best of friends with the Dutch, the latter have, nationally, the strongest feeling against them, and the subject is one upon which every Hollander is ready to dilate *ad libitum.*

The Gorontalo River drains the Limboto Lake, and has a course of barely a dozen miles before reaching the sea. We had a great wish to see the lake, and accordingly started early one morning for that purpose. Leaving the harbour, the road leads northward through the curious ditch-like valley to the town, and then emerges on to a level plain of considerable extent, which is surrounded on all sides by mountains. Looking back, the deep gully appears to be almost equally

Kalapa Island, marked in the chart as off Cape Flesko, does not exist, and the islands and coast beyond appear to have been laid down at haphazard. By our sights we also made Gorontalo eight miles east of its assigned position.

well marked from this side, and it is evident that in past times the whole plain was a vast lake, of which it formed the outlet. We crossed a small affluent of the Gorontalo, and in another mile or two reached the east end of the lake. It is a fine sheet of water about seven miles long, but apparently of no great depth. The water is muddy and of a peculiar pinkish colour, and the shores are bordered by reeds in which there was an abundance of wild-fowl. Our time, unfortunately, was too limited to permit us to pay much attention to these, or to visit some hot springs which are said to exist at the north end of the lake, but we obtained a few characteristic birds at our embarking and landing places. The most conspicuous was a Stilt (*Himantopus leucocephalus*), which occurred in some abundance, stalking about in the sandy ooze far more gracefully than, from its gigantic length of leg, would be thought possible. A beautiful Jacana (*Hydralector gallinaceus*) with a reddish-yellow comb—also a native of Australia—fell to our guns, and we found the handsome purple Coot (*Porphyrio indicus*) common in the reeds. Had we been able to stay in the neighbourhood we might, no doubt, have added largely to our collections, for the lake appeared to swarm with water-birds and waders.

From the little hamlet of Limboto on the northern shore a track leads over the mountains to Kwandang, a village on the other side of the peninsula, and by this means, and the help of native praus, communication is kept up with Menado during the prevalence of the south-east monsoon. Of its use we had evidence while we were at Gorontalo, for from a letter sent overland in this manner we got our first intelligence of the appalling eruption of Krakatau. The inhabitants of Macassar had heard it plainly, and, as we had sailed on the same morning with the intention of passing through the intricate Spermonde Archipelago, it was surmised that the *Marchesa* had gone ashore and was firing guns for assistance, and a prau was accordingly sent to discover our whereabouts. We learnt that the eruption had also been heard at sea off the island of Bouton. At a later period of the voyage we found that the sound of the explosions had actually reached New Guinea.

The coast in the immediate neighbourhood of the Gorontalo River is utterly untropical in appearance, and as different from every other part of Celebes that we had seen as could well be imagined. Bold, rocky promontories, and headlands on which there is but little vegetation, replace the usual sandy beaches where the dense jungle hangs over the water, and the wavelets break in short, crisp plashes. Here the formation is granitic, and enormous blocks of that rock, often twenty or thirty feet in height, line the shore, which at this season is washed by a sea sufficiently rough to make landing in a small boat difficult, if not impossible. It is only some distance inland, or in the deeper gullies, that any patches of woodland occur. Pandani of a species we had not

seen before grew here—large, and with thick ringed trunks, and at a distance looking like the Candelabra Euphorbia. Nor are the inhabitants less different. Instead of the short, broad-face natives of the Tondano district, we found a taller and darker people of mixed blood, many of whom had the piercing look of a Kling. The language prevailing is quite distinct from any in Minahassa.

The people of the village of Liatto, a short distance eastwards of the mouth of the Gorontalo, are Mohammedans, as indeed are all the natives in this district who are not Pagans, and, in consequence, we found wild boars abundant and unmolested in their plantations, and were able to shoot several of them. Here and in Gorontalo small-pox was very prevalent, and at one village of no great size the chief told us that there were over a hundred cases. The Dutch have not introduced vaccination here as they have in Minahasa, and the disease was consequently very fatal. In Gorontalo itself, where the population is more mixed, and includes Bugis, Klings, and other races, in addition to over a hundred Chinese, the death-rate was not nearly so high.

Thanks to the kindness of one of our German friends, we made an addition to the *Marchesa's* menagerie in the shape of another Sapi-utan. It was a young bull only a few months old, and scarcely more than twenty-four inches high, its body covered with a light yellowish-brown woolly hair, and the horns three inches in length. It remained with us until we reached Ternate, when we dispatched it to England, but, like the other we had obtained at Menado, it unfortunately did not live to reach its destination.

The Kontroleur of Gorontalo was anxious to visit Pogoyama, a village lying at the mouth of a river five and twenty miles farther up the gulf, his principal object being to secure a man who had recently committed a murder, or at least to put such pressure upon the chiefs as would ensure his being eventually delivered up to justice. We therefore arranged to proceed to the place in the yacht, and the party—which consisted of the Kontroleur and half a dozen coloured police—having been got aboard at an early hour, we sailed before daybreak for our destination. Native authority also was to be represented, and we carried the son of the late Sultan of Gorontalo and his attendants—a title, by the way, which has been abolished by the Dutch. We arrived off the entrance of the river after four hours' pleasant steaming, for the sea-breeze had not sprung up, and the surface of the water was almost unruffled.[1] As we crept cautiously in, for we had no charts to aid us, we encountered a strong stream of the colour of pea-soup, which led us

[1] At Gorontalo the sea-breeze at this season sets in from the S.S.E. about 9.30 A.M. and blows strong until 3 P.M. or even later. The land-breeze begins regularly at 6 P.M. It blows steadily through the night, and is very cool. Although Gorontalo is almost on the equator, the thermometer between decks during our visit invariably sank to 78°.

to conclude that a considerable body of water was debouching here. On reversing the engines, however, the screw suddenly revealed deep water of a clear sapphire blue, having washed aside what proved to be merely a shallow surface layer of the muddy river. Anchoring was even

SAPI-UTAN. (*Anoa depressicornis.*)
From a Photograph of a Seven-year-old Male in the Rotterdam Gardens.

more anxious work than usual, owing to the depth of water and its sudden shoaling, and the strong eddies we experienced, but we eventually found ourselves in a fairly secure, although somewhat extraordinary berth. We had seven fathoms of water at our bow, and six at the stern, whilst amidships our keel must have been almost touching. Astern of us the trees were less than twenty yards off, and within thirty

feet, on our starboard side, the water was only ankle deep! Truly, one becomes acquainted with strange anchorages in this part of the world.

Landing the Kontroleur and his policemen for their interview with the chief, we continued our way up the river in the boats. The scenery was extremely pretty. The bareness of the country round Gorontalo had disappeared, and we found ourselves once more in the midst of tropical vegetation of the usual type. The river flowed between abrupt, forest-clad hills of considerable height, but at a distance of about four or five miles from the mouth became beset with rapids and shallows, the passage of which was difficult even in a native canoe. There was no distinct village, the houses being scattered at intervals along the banks. They were built on land, but each was provided with a little stage or pier erected over the stream, where the natives could be seen embarking and disembarking in their canoes, or dipping up water from the river by means of a long bamboo. The Pogoyama people speak a dialect of the Gorontalo language, and, though probably free from any admixture of Papuan blood, seemed to us taller and darker than is usual among those of Malayan race. Those whom we saw were not of particularly pre-possessing appearance, and offered a marked contrast to the mild-eyed Minahasans we had left only three or four weeks before.

We found a number of quartz pebbles in the bed of the stream, and on our return joined the Kontroleur, who had with him a small nut half full of gold dust, which had been obtained by panning out the river sand. The natives here and at Pagowat—a village thirty miles farther up the gulf—pay their tax to the Dutch Government in gold, and are allowed twelve guilders for as much as will balance a one guilder piece. All this gold is alluvial, the natives being unacquainted with the art of quartz-crushing, but, if their statements were to be believed, they knew of gold-bearing rock at a place some miles distant inland; "a face of rock," to use the words of my informant, "where the gold could be seen like the veins on a man's hand." The Government appears to take little or no interest in the subject, and some time before our visit had readily granted a concession to a Dutchman to work the district. He died shortly afterwards in the island of Batchian, and no steps have been taken, either before or since, to explore the locality.

We heard a curious story of a deep pit which exists at the west point of the bay, about four miles from the mouth of the river. This pit is said to contain a great number of human bones, and the legend ran that, in ancient times, some great chief suspected the presence of gold at the bottom of it, and sent a number of men down to obtain it for him. The Spirit protecting the treasure, indignant at its possession being thus rudely attempted without some propitiatory offering, revenged herself by slaughtering the intruders, and their bones remain as a warning

to the present day. As our time was limited to a single day, and we wished to explore the river, we had to be content with despatching some men to the place with instructions to bring us perfect crania, or, failing these, the best specimens that they could obtain. They returned in the evening with several femora and other bones, but only fragments of skulls. All were of adults, and some of women. The men told us that there was no pit, and that they had found them near the shore, but a native at once said that they had not discovered the right place, and that the pit, which was a very deep one, was in the forest. It was unfortunate that we could not visit the place ourselves. The theory that the story was in the main correct, and the victims had met their death from the presence of carbonic acid gas at the bottom of the cave, of course presented itself, but it seems more probable that it was merely some ancient burying-place. Although I am not aware that cave sepulture exists in Celebes, it is known in Luzon and other islands of the Philippines.

The peculiarities of the Celebesian fauna and their interpretation have been most ably expounded by Mr. Wallace in his "Malay Archipelago," and are known to every zoologist. To my non-naturalist readers, however, I may perhaps be permitted briefly to mention them. Celebes is singularly poor in mammals, but putting aside those that have most probably been introduced by man, an extraordinarily large proportion of them are found to be peculiar to the island, and many—such as the Anoa, the Babirusa, and the black, baboon-like ape[1]—are without near allies in any of the neighbouring islands. The birds, too, are remarkable for the same reason. *Scissirostrum*, the peculiar starling to which I have alluded (p. 299), and another with a curious, laterally-compressed crest of steely blue feathers (*Basilornis*); two black and white magpie-like birds (*Streptocitta*)—known to the natives as the *burong pandita* or missionary birds, from their sober plumage and white collar; the beautiful blue Roller, and the still more lovely Kingfisher, *Ceycopsis fallax;* the Maleo, and many others, are forms characteristic of Celebes alone.[2] Like peculiarities are found among the butterflies and other insects, and for these and other reasons there is but little doubt that Celebes, in spite of the proximity of the surrounding lands, became isolated at an exceedingly remote geological epoch. "It, probably dates," says Mr. Wallace, "from a period not only anterior to

[1] Mr. Wallace ("Geographical Distribution of Animals," vol. i., p. 427) says, "there is some doubt about the allied species or variety (*Cynopithecus niger*) of the Philippines being really indigenous there."

[2] The Maleo, the Babirusa, and other peculiar Celebesian forms were remarked upon by the old Spanish voyagers. Purchas says of the island of Batchian, which seems to have been confused with Celebes, that "there be here small Hennes which lay their egges vnder the ground aboue a Fathome and a halfe, and the egges are bigger than Duck's egges. . . . There are Hogs also with hornes and parats which prattle much."

that when Borneo, Java, and Sumatra were separated from the continent, but from that still more remote epoch when the land that now constitutes these islands had not risen above the ocean."

We left Pogoyama early on the day following our arrival, and dropping our friend the Kontroleur and his policemen and our other passengers at Gorontalo, sailed the same evening for Ternate. We had been very fortunate in our collections, and had added two birds (*Astur trivirgatus* and *Alcedo bengalensis*) to the list of the Celebesian avifauna; we had had excellent weather and good sport, and had met with many kind acquaintances and friends. But foremost among our pleasant memories of the time we spent in Celebes were those of smiling faces and rose-bedecked cottages in the mountains of Minahasa.

CHAPTER XX.

THE MOLUCCAS.

East of Northern Celebes, and separated from it by a hundred miles or more of deep sea, lie the Spice Islands. I had nearly said the Moluccas, but this name, restricted in former days to the little chain of volcanic islets lying off the western coast of Gilolo, of which Ternate is the chief, now includes all the islands between Celebes and the Papuan group. Our passage over this strip of blue water, which the soundings tell us to have existed for countless ages, was pleasant enough despite the S.E. monsoon, for here the latter, becoming diverted from its course, blows from the south or even the south-west, and what little wind we experienced was in our favour. Approaching from the west we rounded the small island of Mitara, and early on the morning of the 28th of September dropped anchor off Ternate.

As far as regards magnificence of scenery, Ternate is perhaps the finest harbour in the Dutch Indies, for it boasts of two volcanic peaks —both of them about six thousand feet in height—which are of wonderfully graceful outline. That of the island of Tidor, which shelters the anchorage to the south, rises majestically from a mass of wild and gloomy-looking hills, but Ternate consists of the volcano alone, which leaves little room for the town to nestle at its foot. Eastward, across a wide strait, are the rugged blue mountains of the island of Gilolo, or Halmaheira as the Dutch call it, whose quaint and spidery shape is almost a replica of Celebes upon a small scale. The view is a very beautiful one, and it was none the less appreciated by us from the fact that, for once in our lives, we were not obliged to lay out anchors all round the ship, or to "tie her up to a tree."

Were a traveller placed at haphazard in any one of these Dutch Malaysian villages—for one can hardly dignify even Ternate by the name of town—he would, I am sure, have no little difficulty in discovering his whereabouts for a moment or two, even if a native of the place. If he were to catch sight of the volcano—for there is always

one close at hand—he would, of course, soon get his bearings, as he would too if he were to come across the whitewashed "Harmonie" where the Dutchmen are drinking their *pijtjes*. But the streets themselves present an iteration of tropical vegetation and native huts, of bamboo-fenced compounds and low, verandahed houses that would baffle even a resident. Ternate has its avenue—a magnificent row of yellow-leaved, scarlet-blossomed *Galelas*—winding along close to the edge of the sea, so close indeed that the waves lap the roots of the outer trees, beneath whose shade are pulled up praus of all sizes, from the smallest "dug-out" to the large Ceram or Banda trader. Opposite, facing seaward, are the houses of the Europeans, with coloured glass balls, and yet more atrocious red and white striped flower-pots, in their front gardens. Walking inland, past the dark, cool fruit-orchards where mangoes, durians, citrons, and a dozen other tropical fruits are growing, we come to a vast collection of old tombs—Dutch, Chinese, Portuguese, even Spanish perhaps, for they too are among the alien races who spilt their blood in the struggle for wealth which devastated this pleasant Eden three centuries ago. Overgrown with grass and rank vegetation, they lie unheeded, waiting for entire obliteration at the hands of Nature. Even of the large Chinese tombs little remains in many cases but the merest traces of their horseshoe-shaped walls.

From these memorials of now happily bygone times a slightly-rising stretch of smooth turf, dotted with fruit-trees of every description, leads up to join the lower slopes of the mountain, which is clothed with vegetation almost to its summit, and scarred with deep furrows. The actual apex of the volcano, from which floats a light stream of smoke, appears blunt and irregular from the town, but seen from Sidangoli on the coast of Gilolo, we found it even sharper than the peak of Tidor. For all its seeming peacefulness, however, Ternate has been the scene of many eruptions—of no less than fourteen since the beginning of the seventeenth century, we are told; and earthquakes, slight though they may be, still keep its presence constantly in mind. The Ternatians have a quaint legend about it,—that whenever the number of the inhabitants of the island exceeds the height of the volcano an eruption is not long in coming. Such a condition existed at the time of our visit, but we were not fortunate enough to be witnesses of what the Dutch expressively term an *uitbarsting*.

One of our first visits was to the Resident, Mr. Van Bruijn Morris. He had just returned from a voyage to New Guinea, in the course of which he had been as far east as Humboldt Bay, the extreme limit of the Dutch claim on the northern coast. The *Challenger*, it will be remembered, touched at this spot on her way to the Philippines, and, like the officers of that ship, the Resident had not met with a very pleasant reception, although no actual fighting with the natives had

ensued. We obtained from him, and from the captain of his yacht—the *Sing-Tjin*—some useful information on the localities we intended to visit, together with some Dutch charts and hydrographical notes, which we afterwards found of great assistance. Formal calls having been exchanged, we soon became intimate; with the more readiness, perhaps, on finding that Mr. Morris took great interest in birds, of which he had made a large collection on his travels. His aviary, a large and well-lighted room, kept with great care, contained a great variety of the rarest and most beautiful of the parrots of the Papuan region—the gigantic-beaked *Microglossus*, sombre of plumage and slow

HEAD OF PESQUET'S PARROT. (*Dasyptilus pesqueti.*)

of movement; the long-tailed *Aprosmictus dorsalis*, of wonderfully vivid hues; numbers of brush-tongued lories of every shade of colour; the jetty-plumaged *Chalcopsittacus ater;* and lastly, most singular of all its kind, the rare Pesquet's Parrot (*Dasyptilus pesqueti*), half vulturine in appearance, and with the face and throat bare—a native of the mainland of New Guinea. But the gems of the collection were two superb specimens—both full-plumaged males—of the Twelve-wired Bird of Paradise (*Seleucides*). The native-prepared skins seen in European museums give no idea of the glorious beauty of the living bird. The subalar plumes, whose prolonged and wire-like shafts have given the bird its English name, are of a rich golden yellow, and the pectoral shield, when spread, shows to advantage its tipping of metallic emerald. These exquisite creatures were fed on the fruit of the

Pandanus, with an occasional cockroach as a *bonne bouche.* In devouring the insects, which they did by throwing them in the air and catching them again, they displayed the wonderful grass-green colouring of the inside of the mouth and throat. The feelings of admiration with which I watched these birds, which are among the most exquisitely beautiful of all living beings, I need not attempt to describe. My reader, if a naturalist, will divine them; if not, no description of mine would ever make him realise the intense pleasure of the first sight of such masterpieces of colouring.

As we were anxious to overhaul gear and get some little repairs and alterations done on board, we endeavoured to find some kind of cottage or house in the town in which we might instal ourselves until we were ready to put to sea. Only one was available, and, as it was actually unfinished, as well as unfurnished and very damp, we found ourselves in a difficulty, from which, however, we were at once relieved by one of our kind Dutch friends—Mr. de Bruijn Prince—who took us bag and baggage to his house, and made us his guests until our departure. I mention this as only one of the many acts of kindness we experienced at the hands of the Dutch merchants and officials in the Malay Archipelago,—kindness to which our very pleasant recollections of civilisation in these parts are in no small degree due. In this instance it was of the greatest service to us, enabling us to dry and arrange the specimens we had already collected, and to clear the ship of useless lumber in order to make room for the "trade" it was necessary to lay in before starting for the New Guinea region.[1] The house stood at the back of the town in a little compound, with the

[1] The following is a list of the articles with which we were provided :—

30 pieces Turkey red	12½ doz. clasp-knives
50 ,, prints	500 round gold Chinese buttons
20 ,, dark blue cotton	6 gross Chinese buttons
30 cotton shirts	220 Chinese looking-glasses
10,000 needles	6 small musical-boxes
Reels of cotton	150 lbs. Chinese tobacco
2 gross packets of pins	50 lbs. American ,,
6 doz. axes	12 bars of iron
12 bottles of sweets	Brass-wire
Beads, assorted	Fish-hooks
Coloured scarves and handkerchiefs	Malay sarongs

Besides these we carried muskets and gunpowder, not for bartering with the untrustworthy natives of the mainland, which would have been contrary to Dutch law as well as our own principles, but for exchange with the half Malay hunters of the *Rajah ampat*, as the district over which the Sultan of Tidor claims authority is named. Perhaps the most marketable of all the above articles were the Chinese gold buttons, of which the natives made earrings, but the axes and iron were also a good deal run after. The "Turkey red" and cottons were almost useless, for the Papuan is—from a medical point of view—a wise man, and does not set his affections on clothing. Curiously enough, the natives did not seem to care for the fish-hooks, although their own, which are generally cut out of the clam or some other shell, are very clumsy.

usual large whitewashed pillars at the entrance-gates. Here in the Moluccas the Nipa-leaf attaps, which in Borneo and Sulu form the sides and partitions of the native huts, or even the residences of the Europeans, are replaced by the *gaba-gaba*—the leaf-stalk of the sago palm. In section these stalks or midribs are V-shaped, and hence, when placed upright and one against the other, they form an imbricated wall of considerable strength, which, when smoothed and painted white, looks fairly neat.

The gardens and woods surrounding us, though doubtless a paradise for the botanist, were singularly devoid of bird-life, and even our rambles farther afield to the coffee and other plantations on the slopes of the volcano were equally unproductive. But walks in Ternate were nevertheless enjoyable from the history associated with the island, and the moss-grown ruins of old walls which ever and anon crop up to remind one of the bygone struggles of the Spanish, Portuguese, and Dutch for its possession. Now an air of placid somnolence pervades the place, and will remain, probably, for all time, except it be for the mighty forces which lie dormant within the huge volcano cone. At this distance of time we catch ourselves wondering how it could possibly have come about that the trade in such insignificant objects as cloves and nutmegs should have been considered as of almost equal importance with the riches of the New World. Yet Ternate for nearly two centuries was the scene of as much bloodshed and cruelty as any spot on the surface of the globe. So long ago as the end of the fifteenth century the spices of the Moluccas were made known to the civilised world by the Bugis and other native traders, but it was not until 1511 that Antonio d'Abreu sailed into these unknown waters and returned with his laden galleon from Amboina. His accounts excited the cupidity of the Portuguese, but the constant fighting that their conquests in Malacca and Sumatra entailed obliged them to postpone their designs on these still more distant regions. Ten years later—the year of the discovery of the Philippines by Magellan on his memorable voyage round the world—an expedition was fitted out under Antonio de Brito. It reached Ternate, and finding the *Trinidad*—one of the ships of Magellan's squadron—in the port, seized her and sent her crew as prisoners to Malacca. De Brito and his people were received with the greatest kindness by the Ternatians, and before the year was out had built a fort upon the island. Once fairly established there was no longer need for the concealment of their designs, and they commenced the hateful policy which, in those days, characterised the Dutch and Portuguese alike. For more than sixty years the history of the islands is little else than a record of the most atrocious cruelties and the vilest acts of treachery. At the end of that time their power, which had been gradually waning, was practically crushed by a rising of the islanders

and the capture of their forts. Meanwhile the Spaniards, in spite of having agreed in 1529 to renounce their claim to the Moluccas for the sum of 350,000 ducats, had not only intrigued against the authority of the Portuguese in the islands, but had even fitted out expeditions against them, although without success. In 1606, however, a squadron from Manila succeeded in taking both Tidor and Ternate, but, strangely enough, no garrison appears to have been established. The unhappy natives were nevertheless not destined to be left long undisturbed. The intrigues of the Dutch, whose vessels had for years haunted Moluccan waters, were at length successful, and in 1613 they contrived to conclude a treaty with the Sultan of Ternate, by which the latter agreed that the trade in cloves should be the exclusive privilege of Holland. It was the beginning of the end,—a jump from the Portuguese frying-pan into the Dutch fire,—for once furnished with a handle so convenient as the treaty afforded, the latter nation did not scruple to use it. It is needless to say that a strict adherence to the terms of the agreement was practically impossible for the natives, and under the pretext of their infraction the various islands were reduced with short ceremony. Thus, bit by bit, the Moluccas passed into Dutch hands, and their miserable inhabitants were not long in discovering that Dutch treachery and Dutch cruelties were even worse than those of the Portuguese rule. Revolt after revolt occurred, the intervals between each becoming longer as the grip of Holland tightened, but in 1681 the last expiring effort was made, and thenceforward the Spice Islands sank gradually into the condition of dreamy *laisser aller* which characterises them at the present day.

Signs of these ceaseless struggles, in the shape of ruined walls and gateways, are visible, as I have mentioned, at almost every step on the outskirts of the town, but in most cases little enough can be made out of them, so tumble-down is their condition. Three forts, however, still remain. The largest, which is placed in the middle of the town, about a couple of hundred yards from the sea, and is said to have been partly built by the Portuguese, is still garrisoned by the Dutch, and bears its name—"Fort Oranje"—over the gateway. At the extreme north of the town, perched on a little promontory just above the beach, is a small blockhouse which probably dates back to the middle of the sixteenth century. It is now in a half-ruined condition, in spite of attempts having been made in later times to repair it, and vegetation sprouts from the fissures in its walls. The view from it is magnificent. A beach of dark sand and pebbles, lined with picturesque huts half-hidden in masses of banana and fruit-trees, stretches away to the south, and leads the eye up to the rugged hills and great peak of Tidor, which with its sister cone of Ternate dominates the calm blue waters of the harbour. From this point the last of the three forts must be four or

five miles distant, situated as it is beyond the outskirts of the town on the south side. We came upon it quite unexpectedly during one of our ornithological rambles, for though we had asked our Dutch friends if there were any ruins in the neighbourhood, it had not been thought worthy of mention. Although considerably larger than the northern fort, it is of no great size, but it appears to have been built with great care and skill, to judge from the perfect laying of the heavy masonry of the embrasures, and in those days must have been well-nigh impregnable. It is no doubt contemporaneous with the Portuguese occupation; possibly indeed the first fort they built on landing here in 1521. Now the jungle has left it nothing but a picturesque ruin, almost invisible

PORTUGUESE FORT AT THE NORTH END OF TERNATE.

at a little distance amid the confused mass of greenery. Trees grow within the walls, and, with the rank tropical undergrowth, have almost choked the old chambers. It was a snake-suggesting place, and its exploration did not appear to us particularly tempting. Nor were we repaid for our trouble, for neither date nor inscription nor anything else of interest was to be found. In the blockhouse, of which I give an illustration, two coats of arms were cut in the masonry just within the doorway.

The Sultan's palace, a dilapidated-looking house in the European style, is the most conspicuous building in Ternate. It is perched on the summit of a small hill, and overlooks an expanse of thoroughly English-looking grassy common reaching to the sea, on whose shore, hauled up beneath a large open shed, lay the imperial prau. This boat,

and the crowns of the coco palms, and is inconspicuous enough till its emerald head flashes back a ray of sunlight. A brilliant blue Kingfisher (*Halcyon diops*) inhabits the island in abundance, the female differing from the male in having a pectoral band of dull cobalt; but a still more strikingly-coloured Ceyx (*C. lepida*)—coral-billed, the under surface reddish orange, and the rump bright ultramarine, we found much rarer. Gilolo produced us two of the rarer Pigmy Doves (*Ptilopus monachus*) and *ionogaster*), their grass-green plumage varied with shades of lavender, yellow, and magenta, and the magnificent Ground-thrush (*Pitta maxima*), the giant of its genus. This bird is, like all the Pittas, of the brightest plumage, but, as it runs along the ground, these colours are invisible, the whole of the upper surface being a deep velvety black. Beneath, the abdomen is crimson, and the breast snowy white faintly shot with blue in some lights, while the shoulders are of pale metallic blue of extraordinary brilliancy.

The true Birds of Paradise are, as my reader is perhaps aware, entirely confined to New Guinea and its islands. A solitary exception exists to prove the rule in Wallace's Standard-wing, which, as far as is yet known, occurs only in the two Moluccan Islands—Gilolo and Batchian.[1] But though we could look for no living Paradiseidæ in the forests and plantations of Ternate, we found an abundance of their skins in the cabinets of Mr. Bruijn, a collector who nearly every year sends hunters to the little-known regions of New Guinea. Some of them had only recently returned, and as the expedition had been a fortunate one, we had the advantage of examining several of the rarer species with which we were destined later to become better acquainted. The skins were beautifully prepared—no easy matter in damp climates such as these, where they often remain limp for weeks after they have been removed from the birds' bodies. This difficulty is obviated by the universal custom in vogue among Malay hunters of fixing a small stick in the base of the skull, the other end of which is allowed to protrude at the vent, thus keeping the head and neck in good position. The skins of Birds of Paradise, as an article of trade, are prepared in quite a different manner, and almost always by Papuan natives, not by Malays.

[1] From the earliest writers up to those of the present day the erroneous statement is constantly made that the Birds of Paradise are found in the Malay Islands. Camoens may be allowed a poet's licence when he sings—

> "Olha cá pelos mares do Oriente
> As infinitas ilhas espalhadas;
> Vê Tidor, e Ternate . . .
> . . . . .
> *Aqui ha as aureas aves*, que não decem
> Nunca á terra, e só mortas apparecem."
> (*Cant.* x. cxxxii.)

but Miss Bird, in her "Golden Chersonese," brings them another thousand miles farther west, and tells us of their existence in the Malay Peninsula!

Stripped off with little or no care, the legs cut away and the skull removed, the skin is pressed flat between two strips of bamboo, and smoke-dried; and, when finished, it bears as little resemblance to a bird as can well be imagined. These specimens are, of course, useless for the cabinets of a naturalist, even if they are not largely moth-eaten, as is usually the case, but great quantities of them are sent to Europe for dress and hat decoration. The trade, which has existed for more than a hundred years, is almost entirely in the hands of Chinamen, and the largest markets in the East are Macassar and Ternate; Amboina sending a few only to Batavia.

Through the kind assistance of Mr. Bruijn, we were able to engage

TAHIRUN.

hunters for our approaching visit to New Guinea. We had already three Malays on board, one an English-speaking Singapore "boy" who skinned fairly well, the others two hunters we had brought from Malacca —Momin and Achi by name, the latter of whom was an excellent fellow and a good observer. We now added nine others, in two lots of five and four, the one headed by Usman, a native of Ternate, the other by Tahirun, a Gilolo man, and one of the most unmitigated scoundrels in appearance I ever came across. Nor did any one's face belie their character more. He was an untiring hunter and a good naturalist, spoke two New Guinea languages, and skinned well, and after a little instruction I found that I could depend upon his measurements, accounts of the habits of the birds, and other details as well as if I had made the observations myself. Of the remainder of the men two had visited New Guinea before, and were fairly good shots and skinners, two were

perfectly useless, and the other three neither good nor bad. A youth of about sixteen, some relation of one of our hunters, asked permission to accompany us, which we gave him. He was of assistance in carrying the birds while shooting in the forests, and before long became an adept in the use of the butterfly-net and a good beetle-hunter. Our natives, of whom there were thus thirteen, had a separate part of the ship's deck assigned to them, where they managed to live and do their work pretty comfortably. By our sailors this was always known as "Queer Street," or the "Malay quarter."

In Ternate people take life easily. A "dreamful ease" lulls one in these islands which renders exertion an impertinence, and I

USMAN.

remember that I was five days in getting together the ingredients for some arsenic soap. Nearly every article belonged to a different owner, and though careful to avoid siesta-time for my calls, the usual answer given me by the Malay servant, in reply to my inquiry if his master was at home, was, "*Tr'ada, tuan: dia tidor*"—"He is asleep, sir." Sleep, indeed, appears to be the chief occupation in the Moluccas, until it is cool enough in the evening to walk down to the "Harmonie" and drink *pijtjes*. The Malays are more energetic than their masters, and pass their time in kite-flying, an amusement which is of absorbing interest to almost every one of that race. It is a decorous sport, demanding no great exertion, and as such, I suppose, commends itself to the impassive Malay character. The kites are of many shapes, but in Ternate birds did not appear to be in fashion as in Sumbawa. One very pretty one I noticed was a butterfly, whose wings quivered and

fluttered in a very lifelike manner. Most simple of all was that patronised by the little fisher-boys—a single leaf of large size, with a tail of bunches of bamboo-leaves.

On the 7th of October the monthly mail came in, and Ternate leapt suddenly into life. Coolies hurried to and fro with bales of copal, bundles of deers' horns, tortoise-shell, and other products; the merchants, foregoing their siesta, checked the number of the packages that left their stores, and the avenue was crowded with carts and natives passing and repassing. At the pier a sort of fair in miniature was held, and Malays squatted in all directions selling food and cigarettes for the coolies, cockatoos and lories of every hue and size, Bird of Paradise skins, and the huge Crowned Pigeons of New Guinea. Cockatoos screamed, officers shouted their orders, the donkey engine rattled, and an endless stream of bales and packages clattered over the ricketty pier. By and by the steamer gave its final whistle, and the gangway was cast off; the crowd waited to see her slowly disappear, and half an hour later the town was once more plunged in its wonted condition of somnolence. The monthly transformation scene was over.

Mr. Van Bruijn Morris having to pay an official visit to the island of Batchian, and the Kontroleur—Mr. Monod de Froideville—being also bound south with the intention of searching for coal reported to exist in the uninhabited Obi group, we arranged to sail in company. Accordingly we weighed anchor at 5.30 P.M. on the evening of October 9th, running up the Dutch ensign at the fore as the Resident stepped aboard. His yacht, the *Sing-Tjin*, preceded us with the Kontroleur, and we steered our course between the little chain of islands to which I have alluded and the coast of Halmaheira. From a little to the south the volcano of Ternate revealed itself as a mathematically accurate and business-like looking cone. A band of fleecy cloud hung half-way down the mountain, and from the summit, which was just tipped by the setting sun, a light streamer, more of steam than smoke, floated away to the north-west. The sea was as calm as glass, and as we steamed past Maré, Motir, and Makian their outlines showed sharp and clear in the bright moonlight. The two former are extinct volcanic islands, but Makian was in 1862 the scene of a frightful eruption, in which nearly 4000 people lost their lives. Most of them, however, were not actually killed by the eruption, but perished by drowning, overcrowding the praus in their frantic efforts to escape. The mountain had been quiescent for more than two centuries, and, as is so often the case, but little warning of the outburst was given. Now it has returned to its former peaceful condition, and not a trace of smoke was visible at its rugged summit.

This chain of islands, with Batchian, were the "Moluccoes" of the old geographers; the natural home of the clove. The tree is not

much grown now, although in Batchian its cultivation has been recommenced. In 1652 the Dutch compelled the "King of Terenate" to destroy every clove-tree in his dominions, and, in order to obtain the entire monopoly of the spice, restricted the plantations to Amboina, which has until lately supplied Europe to the almost entire exclusion of other localities. It is curious that, although there is but little difference in latitude, and apparently none in soil, the clove has never flourished in its new so well as in its old home.

The village of Batchian—our destination—lies in the middle of the western side of the island of that name, and more for the pleasure of an exciting bit of navigation than with an idea of saving time, we resolved to attempt the passage of the Herberg Strait, a narrow channel dividing Batchian from numerous islands lying to the westward.[1] It was still dark when we arrived off the entrance, and we therefore lay to and awaited daylight. The *Sing-Tjin* then intimated that she would give us a lead, but before long, as we were much superior in speed, we decided to pass her, which we did, in spite of our excellent friend the captain's loud shouts of disapproval. During the passage of the narrowest part, desperate but illegible signals were hoisted by the other ship, which were meant to signify that the total loss of the *Marchesa* was imminent, but secure in a good look-out and perfectly clear water, we carried on, and in another half hour came safely to anchor off the village.

The Herberg Straits, although possessed of no grand scenery, are extremely picturesque, and as fascinating as narrows where one steams almost within stone's throw of the land must always be. Rounding a corner the great mass of Labua looms up as a huge wall, its summit hidden in the clouds. It rises a few miles behind the village, shutting it in much as Table Mountain shuts in Cape Town, though with an even greater altitude, for it is over 7000 feet in height. We were astonished to find the wreck of a fine iron ship of about fifteen hundred tons in a place so far from the great ocean highways. Five years before, while on her voyage from China to Australia, she had taken the ground near Gebi Island, and being afterwards beached at Batchian, had become a total loss. Her hull formed a favourite resort for crocodiles, who sunned themselves on the sloping deck, and a fishing-ground for the natives, who had long ago despoiled her of everything movable.

Our anchor was hardly down before the Sultan's prau put off—a

[1] The Herberg or Batchian Straits, which are over forty miles in length, are but little known and are unsurveyed. We found them apparently devoid of danger, holding a mid-channel course throughout, but a large ship might have some difficulty in passing the first narrows, owing to the sharp turn necessary for entering them and the strong currents generally experienced. The passage is easiest from south to north, as we afterwards discovered on our homeward voyage. At the south end of the northern part of the strait are two islands unmarked even in the Dutch charts, which still further narrow the channel.

large, outrigged boat manned by six and thirty paddlers. Many hangers-on crowded her with colour, and she flew ten or a dozen little flags in addition to a large Dutch ensign. It would be pleasant enough travelling in the boats of these native potentates but for the incessant tom-tom accompaniment that it is considered obligatory to keep up without a second's intermission while under way. *Rŭm-tŭm-tūm, rūm-tūm ; rŭm-tŭm-tūm, rūm-tūm* and so on, *da capo*, soon arouses the most long-suffering individual. Some music, we know, excites feelings too deep for words. That produced by the tom-tom is of this kind. I have heard it in many parts of the world, but I will fearlessly assert the Malayan instrument to be more provocative of bad temper

PRAU OF THE SULTAN OF BATCHIAN.

than any other, though it must be confessed that the Indian music of this class is not far behind it.

The Sultan did not come off to the ship in person, but sent his *Kapten laut* or Admiral as his representative, one of the queerest and most comical little individuals we ever had the pleasure of entertaining. He was a lively young spark of seventy or thereabouts, and was dressed in a little coat of navy blue faced with scarlet, and furnished with miniature tails which stuck out in a most ridiculous manner behind. Large gold epaulets decorated his shrivelled old shoulders, and a middy's dirk dangled at his hip. He had a debonair appearance about him that was delightful, and one felt at once that he must necessarily regard Batchian with contempt. His proper sphere undoubtedly was the Row, where with a good boot and an eyeglass he would have been a complete success. With him came the Kontroleur,

Mr. Storme, for Batchian had at that time been recently made a Dutch station, and, wonderful to relate, an Englishman—the first and last we met with in our travels in this part of the world—an old Carthusian whose wanderings had extended even to New Guinea. Under his guidance we explored the town. At the back is a river, which we crossed by a neat bridge of split areca palm-trunks, and followed a narrow path leading through a dense sago swamp for a mile or more, which brought us to some plantations, both native and European. The *Batjan Maatschappij* have coffee and cacao growing here. Of the latter there was a considerable quantity, and it was looked upon as likely to prove highly remunerative. Like that in Celebes and other parts of the Dutch Indies, however, it had suffered from a disease which causes the fruit to shrivel and drop off even after it has reached its full size. At this season of our visit there had been an improvement, and we found many of the trees looking extremely well and loaded with pods. These plantations were excellent collecting grounds both for birds and insects, and we visited them several times on this occasion, and also on our return from New Guinea.

We divided forces at Batchian, and two of us taking Tahirun, Usman, and three other hunters, sailed for Obi with M. Monod de Froideville in the *Sing-Tjin*. The night was perfect in its loveliness, and the moon, which shone with a brightness unusual in the tropics, was mirrored almost unbroken in the surface of a wonderfully calm sea. Under such circumstances even the thought of bed is a direct insult to Nature, and we sat up far into the morning watching the faint loom of the dark mountain masses of the central island as we circled round it, for we had decided to land on the southern side. At daybreak we were able to run in towards the land, and a couple of hours later we anchored off the mouth of a small river, in a perfectly unprotected position, for, as far as is yet known, the island is without harbours.

Obi Major, the chief of the group, is a fine island about forty-five miles in length by twenty in breadth. The mountains of the interior reach a height of 5000 feet or more, but appear to be clothed with forest to their summits, as indeed is the whole island. Its shores abound in tempting-looking beaches, and the land is apparently both fertile and healthy. Yet, oddly enough, the group is totally uninhabited, the only instance of the kind in the whole of the East Indian Archipelago, and that too in spite of its central position. Now and then it is visited by Malay fishermen from Batchian, who build huts and remain for a week or two to smoke fish or catch turtle, but no permanent settlement exists, and it does not appear that any people of Papuan race ever established themselves here, as was the case in Gilolo to the north, and the islands of Bouru and Ceram to the south.

The spot where we landed had been contemplated as the site of a

RACQUET-TAILED KINGFISHER. Page 351.
(*Tanysiptera obiensis.*)

future settlement, and with that end in view some tomatoes and pumpkins, as well as a few coconut palms, had been planted by the Kontroleur on a former visit. He was anxious to inspect them, and also to explore the forest for gutta and other trees of commercial value, and we started up the river at once. Although nearly sixty yards broad at the mouth, it soon became so shoal that we were unable to ascend it for more than a few hundred yards, and we according disembarked and scattered in various directions through the jungle. Birds were numerous, and conspicuous among them small flocks of a little scarlet lory common enough in the Moluccas (*Eos riciniata*) flew from tree-top to tree-top, far beyond the range of a gun. Another lory of brilliant colouring (*Lorius flavo-palliatus*), peculiar to Batchian and the Obi group—crimson and olive, with a splash of golden yellow in the centre of the back—I could perceive in little parties of half a dozen or so, busily engaged in devouring the soft fruits of some species of Ficus just then ripening, and before many minutes I had a couple of specimens in fine plumage in my collecting-bag. But for a long time I could see nothing of the magnificent racquet-tailed kingfisher of which I was in search.[1] I tried some marshy ground by the river in vain, and was on my way to the seashore when I suddenly came across Usman, and to my great delight saw that he had got two of these rare and lovely birds slung at his breast—the method of carrying their spoil that the Malay hunters almost invariably adopt. I soon reached the spot where he had shot them. It was an untempting-looking bit of forest, dark and damp and fever-suggesting, just at the edge of a mangrove swamp, whose trees were fighting with the jungle for mastery. The ground, bare of vegetation, was covered with a layer of greasy black mud, riddled in all directions with the holes of the little *Gelasimi* or Calling Crabs, who scattered before me in dozens at my approach, cracking their claws defiantly with that peculiar tiny snapping sound which alone would suffice to recall to one's mental vision with lifelike vividness every characteristic in such a scene as these mangrove-clad tropic shores present. I perched myself on a dry root clear of the fetid mud and waited. This time it was not in vain, for before I rejoined my companions on the beach I had shot three specimens of my much-desired prize. The Obi Island *Tanysiptera* has the head and wing coverts brilliant ultramarine, and the rest of the back and wings deep indigo. The entire under-surface of the body is creamy white, and the beak vermilion, while the median pair of tail feathers are greatly prolonged—to a length, perhaps, of nine or ten inches in full

[1] This genus (*Tanysiptera*), which is so remarkable for beauty of colouring and the extraordinary length and shape of the tail, is confined entirely to the Papuan and Moluccan regions, and includes a dozen or more different species, almost all of which have the plumage of various shades of blue. Obi is furnished with a peculiar species—as it is in several other genera—discovered by Bernstein, the first and only naturalist visitor to its shores.

plumage. They are dark ultramarine in colour and very narrow, but terminate in a racquet-shaped expansion of snowy whiteness. I watched the bird sitting on the boughs a few feet only above the ground, motionless but for an occasional rapid movement of the head. Suddenly there was a flash as of a blue meteor descending to the ground, and a moment later the lovely creature had returned to his perch, and sat hammering away at the small crustacean he had found; the whole action reminding me strongly of that of the Bee-eaters.

Our hunters turned up one after another on the beach, and almost all of them had obtained the *Tanysiptera*, which must exist in tolerable abundance on the island. They had also several species peculiar to the Obi group, most noticeable among which was a gaily-coloured Parrot (*Geoffroyus obiensis*) closely allied to its congener (*G. cyanicollis*) of Batchian and Gilolo, and a miniature crow approaching the Paradiseidæ in form (*Lycocorax obiensis*), a curious genus exclusively confined to the Moluccas. Presently the Kontroleur appeared, his natives carrying samples of gutta, of which, together with the dammar-producing tree, he had found an abundance. The only one of us who had met with any adventure was the captain's little dog "Tommy,"—a general favourite on board—who appeared in a dismal plight. He had accompanied me in my rambles, and while I was watching for the kingfishers, terrific howlings from an adjoining swamp had brought me to his assistance just in time to see a small crocodile flop back into the oozy water, leaving Master Tommy with a much lacerated hind leg, lucky enough to have escaped with his life.

Near the mouth of the river we found three deserted huts, which had evidently been built by fishermen paying a passing visit to the island. Two of them were in ruins and half-overgrown with vegetation, but the other was in tolerable repair, and was furnished with raised sleeping-places and a quantity of bamboo shelves for drying fish. On the attap-wall a little cheap German print of a mother weeping over the dead body of her child still hung—a quaint and unexpected relic to find in a deserted hut on a deserted island.

We anchored next day in a bay at the west end of Obi, our object being to search for the ruins of an old fort supposed to have been built by the Dutch about two hundred years ago, of the existence of which the Kontroleur had heard from a native of Batchian who accompanied us. It was near a small river, for which we searched in vain from the ship, but landing and walking along the beach we at length struck it. On its right bank, hardly fifty yards from the shore, but completely hidden from observation, we suddenly came upon the ruin. It was a small building, hardly fifteen yards square, but the walls were fully three feet thick, and, with their height of nearly eighteen feet, must have been strong enough to withstand any attacks by natives. A few

fruit-trees still existed, and faint traces of a path to the stream close by seemed to indicate that the place had been inhabited in later times, but now it was the picture of desolation. The jungle had carried the fortress, and huge creepers had scaled the walls. Everything was dreary, dark, and dripping, and it was a relief to turn our backs on the place and emerge once more from the gloomy forest into the bright tropical sunlight. We looked in vain for any date—which it used to be the custom of the Dutch to place over the gateway—or for the later monogram of the "Vereendigde Oost-indische Compagnie." It is said that years ago there were many people living on the island, but that the pirates caused its desertion. Our hunters were very unwilling to visit the group alone, though whether on this account, or from fear of ghosts or fever, I could not discover.

MONOGRAM OF UNITED E. I. COMPANY.

This end of the island yielded us very little, our progress inland being stopped in several places by sago swamps, which, from the traces of felled trees and the remains of old paths, appeared to be occasionally visited and worked. We shot a few small birds, but saw no more of the racquet-tailed kingfisher, and our only prize was a grand orchid of huge size, which was new to us—its long sprays of pea-green flowers spotted with black and yellow.

The Kontroleur, finding his explorations in search of gutta and camphor thus stopped, resolved to anchor farther to the north. We weighed and proceeded cautiously under the direction of the old native I have mentioned, passing between the mainland and Mala-mala, which, instead of a rock, as marked on the chart, we discovered to be an island at least three miles in length. It forms a breakwater to the east, but we were unable to find an even passable anchorage, and eventually let go in an awkward position off a small sandy beach, in the neighbourhood of which, according to our guide, both coal and iron existed. The former turned out to be lignite, of easy ignition and very light, and quartz rock containing an abundance of iron pyrites was common. From other parts of the island we brought away specimens of hard granitic rocks, hornblende, mica and micaceous schist, and jasper, and at one spot pure alum in tolerable quantity was found by one of our party.

Obi Latu—an island lying at the north-west end of Obi Major—was our next destination, and here we found an excellent bay, guarded at the mouth by an island, unmarked even in our Dutch chart, which the native called Pulo Kuching, or Cat Island. It was exciting work entering; the crystal-clear water, which was hardly more than four fathoms deep, showing large jagged rocks on the bottom, against which

we momentarily expected to run, for the glare of the sun prevented our seeing any distance ahead. Luckily—for in these waters chance has considerably more to do with navigation than in our own—we reached our anchorage safely. It was a good one; well protected in all except easterly winds, and of importance as being the only harbour we found in the group. Our old guide, however, spoke of the existence of another, and a still better one, at the northern extremity of Tapa Island.

We landed our hunters on Obi Latu, and rowed out to Pulo Kuching, which a nearer investigation showed to consist of two islands in process of union by the action of the inevitable mangrove. At one part these trees had perished for a distance of a couple of hundred yards or more, and it would be difficult to imagine anything more grotesquely horrible than the scene they presented. The trunks were as black as if they had suffered from the ravages of a forest fire; dank, greasy, and covered with fungus. Some had fallen, and lay with their gaunt dead branches locked together to form an almost impenetrable barrier. Others still stood; so rotten that the slightest touch sent them crashing into the fetid ooze. The weird, gnarled roots—tougher than the trunks—still remained, forming a precarious network, which from its decayed condition was well-nigh impossible to traverse. Scrambling over these, bathed in perspiration and battling with swarms of mosquitos that attacked me, at one moment slipping into the inky mud, at another creeping hazardously along a single overarching root, it seemed to me that I had never got into a more horrible place. A living mangrove swamp at low tide is unpleasant enough, but, to enable my reader to realise a dead one, I should need the pencil of Doré, or the pen of Edgar Allan Poe.

Leaving Cat Island we coasted round our newly-discovered bay, and found it to be apparently quite free from shoals. At one spot, just inside the jungle, we came across a little hut containing an immense store of dried fish, left there no doubt by some Batchian fisherman until he could carry it off in a large prau. There were great quantities of a little sardine-like fish, done up for smoking in small bamboo frames, and our natives at once set to work and purloined hard, completely loading our boat with the spoil. Our excellent friend and skipper, Captain Hakkers, watched them, placidly smoking. When they had quite finished, he made them return it all, even to the last fish!

We sailed on the following day for Bisa, and landed at its extreme westerly point. It is a low and densely-jungled island, thus differing conspicuously from Obi and Obi Latu, the latter of which has some curiously sharp peaks, undoubtedly of limestone rock, at its northern end. The dried-up bed of a small stream permitted us to penetrate some distance

into the forest, and we obtained some good birds, among them a brilliant yellow Thickhead (*Pachycephala obiensis*) and a couple of the fine Nicobar pigeon—a generally distributed, but at the same time uncommon bird in the Eastern Archipelago. It is almost entirely confined to small islands, where it is safer from the attacks to which its heavy build and terrestrial habits expose it. Its coppery green plumage and snow-white tail render it strikingly handsome, but the great development of the neck feathers, which are elongated into drooping hackles of considerable length, make it appear to the casual observer more like a gallinaceous bird than a pigeon. We stopped two or three hours only at Bisa, and arrived at Batchian the same night, having had a most enjoyable cruise; none the less pleasant from the sea having been of unruffled calmness throughout.

The Sultan of Batchian gave a dance in our honour upon our return. It was held in a long, attap-roofed room open on three sides, but capable of being closed by tatties of native cloth. At the upper end was a semicircle of seats, the centre one occupied by the Sultan, those to his left reserved for the bare half dozen of Europeans living in Batchian. Before our host a table was placed, with a quantity of excellent Manila cheroots, and some curious wines which claimed to have come from Bordeaux. The sides of the room were lined with seats two or three deep, those opposite the entrance being reserved for the ladies, and those facing them for the gentlemen. Rank is everything even in the island of Batchian, and a gap in the row of chairs served not so much to permit of people passing into the next room as to separate the ladies of royal blood from those of inferior rank. Each of the former had an attendant sitting behind her, and was dressed in the usual *kibaya* and *sarong*, and covered with bracelets and other ornaments. Many of them were decidedly good-looking, and their magnificent gold-embroidered *sarongs* put the European dresses quite into the shade. The Malay races have almost everywhere adopted dances similar to our own, or at least adaptations of them, and a square dance resembling a quadrille, a sort of mazurka, and a "hop" waltz which formed the programme were not beyond our powers. It was an amusing experience to make the "ladies' chain" in company with a kris-begirt warrior smoking a Manila, but it was still more comic to watch our friend the Kapten Laut. The way the old gentleman flirted with his various partners, the desperate energy with which he danced, and the convulsive wagglings of the epaulets and middy's dirk on his shrivelled old body kept us in fits of suppressed laughter for the whole of the evening.

The rest of our party had not been idle during our absence in the Obi Islands. Thanks to the kindness of Mr. Storme, the Kontroleur, we had been permitted to take in a fresh supply of coal from the

Government stores—the last that we could expect to get to serve us for our New Guinea voyage. Some observations for the longitude corroborated those of the Dutch, placing "Fort Barneveld"[1] in Long. 127° 27′ 30″ E.; two miles eastward of the position assigned to it in the English chart. The anchorage off the village affords good holding ground, and is free of shoals. It is well protected except to the S.S.W., but a heavy swell not infrequently sets in from that quarter during the

GATE OF THE SULTAN'S HOUSE, BATCHIAN.

prevalence of the southerly monsoon. Excellent water is obtainable, and we took advantage of it to fill up our tanks before our departure. The birds and insects collected had not been numerous, but we were more than satisfied with them, as among the former were several specimens of the Bird of Paradise discovered here in 1858 by Mr.

[1] A fort was established by the Portuguese at this point in the early part of the sixteenth century, but it fell into Dutch hands in 1539. The present building, which is of very small size and manned by half a dozen coloured soldiers, bears the date 1615 and the arms of Zeeland over the gateway. Just previous to our visit a fire had occurred during the unaccustomed business of saluting the Resident of Ternate, and little was left but the four bare walls.

Wallace—*Semioptera wallacei*, Wallace's Standard-wing—the only one of the Paradiseidæ found out of New Guinea and the true Papuan Islands. This bird is singularly unlike most of its family both in form and colouring. It is of a more or less uniform *café-au-lait* brown, fading on the wings into a delicate creamy buff. On the throat and breast is a shield of metallic feathers of emerald green colour, and of remarkable brilliancy, terminating on either side in a sharply-pointed tuft. But the leading feature of the bird—the striking peculiarity from which it takes its generic name—consists in two long oar-like feathers of creamy white springing from each shoulder, which, by means of a small muscle attached to the papilla of the feather-case, can be erected or depressed at will.

We obtained sixteen specimens of this curious and beautiful bird, which seemed to be fairly abundant in the neighbourhood of the village. The natives told us, however, that it was very local, frequenting certain parts of the forest only, as is the case with some others of the Paradiseidæ. It is also found in Gilolo, and although our search for it proved unsuccessful, I cannot help thinking that a further exploration of Obi Major, which by its geological and other characteristics seems to be closely allied to Batchian, would add either this species or one nearly resembling it to its avifauna.

The common Malayan deer was numerous in the forest and plantations at this part of the island. It furnishes a permanent livelihood to a tribe of Gilolo Alfuros, who have been settled in Batchian for many generations. Living for the most part in the hills, they kill and smoke the deer, and bring the meat into the villages for sale. We were fortunate enough to witness and assist at one of their hunts, in which no other weapon but the spear is used. The side of a large ravine which had been partially cleared, and presented a confused jumble of fallen trees and low brushwood, was assigned to us as our post, and from the extensive view it commanded we were able later in the day to watch one run almost from start to finish, although at first the sport appeared to be successful in every direction but our own. At length a stag broke cover about five hundred yards above us, and descended the slopes of the ravine, but shortly afterwards turned and made for the forest again. He was met by some of the hunters and driven back, but the dogs were now in full cry, and pressed him hard, the hunters meanwhile racing at their utmost speed above, in order to prevent his regaining the jungle. He now altered his direction, and turned down once more towards us, but the fallen trees were here so thick that the dogs rapidly gained on him. He made one more effort for his life by doubling, but it was too late, and in another moment the dogs and hunters had fairly run him down.

The natives who make their living in this manner are, as may be

imagined, capable of undergoing a great amount of fatigue, but it is not an uncommon thing for them to die of sheer exhaustion during a hunt. One of our Batchian friends told us that he had actually witnessed such a case himself, and had also been present on another occasion when a hunter had died under similar circumstances. They apparently begin to learn their trade early, for we noticed among our party two boys of nine or ten years of age, who, unencumbered with any clothing whatsoever, and carrying a little spear, managed to keep up with the others, and to be in at the death of the stag. The dogs are most carefully trained, and are always rewarded by the head of the animal, and it was only after much discussion that we were in this case allowed to take the trophy.

It was at Batchian that we first saw sago in process of manufacture by the natives, and it was interesting to note that the method employed was almost identical with that described by Mr. Wallace as in use in Ceram. The tree itself furnishes almost all the necessary apparatus. One of the large leaf-stalks ensheathing the trunk at the base, when placed horizontally and supported two or three feet above the ground, forms a deep trough, at one end of which is a sieve or strainer. This is very ingeniously constructed from the dense mat of dark fibrous substance found at the base of the leaf-stalks. Scraped and teased out until of the necessary mesh, it is kept stretched tense by means of an elastic stick bent over and fastened to the top. The crushed pith is mixed with water in the trough, stirred up and down, and pushed toward this sieve. Passing this, it runs along another palm-stem gutter, which is blocked at the farther end by a handful of the same coir-like substance as that forming the first strainer, and the liquid then falls into a canoe, slightly tilted so that an overflow of tolerably clear water takes place at one end, while the sago is deposited as a pasty substance at the bottom. The raw starch thus obtained is afterwards dried, and baked into small cakes or biscuits five or six inches square, which are tolerably palatable and well adapted for a traveller's use, owing to their portability and the amount of nourishment they contain, but the flavour is very different from that of European sago. The double washing, granulating, and roasting which the latter undergoes renders it more attractive in appearance, but robs it somewhat of the characteristic taste of the native article.

We had obtained but two specimens of the Nicobar pigeon during our visit to Obi, and hearing from a native that the Weda Islands, upon which he had once landed while on a fishing expedition, abounded in these birds, we determined to visit them on leaving Batchian. They are an uninhabitated group of coral islands lying a few miles off the southern extremity of Gilolo, very numerous, but of no great size, the largest—as far as is known—being not more than

four or five miles in length. Their position being purely conjectural, we approached them with caution, but it was to all appearances unnecessary, for there were no signs of outlying reefs, and the deep blue water ran up to the very edge of the coral. We sought for an anchorage in vain. For some time we obtained no bottom at one hundred fathoms, and as our best cast only offered us a depth of fifty-two fathoms within a few yards of the reef, we had to be content to land for a few hours, while the yacht remained under way a mile or two off the coast.

The little archipelago extended to the west and north; a nest of low and thickly-wooded islands with belts of yellow sand surrounding them. That on which we landed was of no great breadth, and on crossing to the farther shore we found that a reef, just flush with the water, ran apparently for an interminable distance eastwards, dotted here and there with tiny islets. Three or four miles away a faint white line was visible, and a dull roar as of distant thunder told us—the chart to the contrary notwithstanding—that it indicated the limit of the group in that direction. There is always a strong element of fascination about an uninhabited island, more especially if it be unknown or nearly so, and our ramble was a very enjoyable one, although hardly as productive as might have been expected. We did not find a single specimen of *Caloenas*, as we had hoped, but other pigeons were extremely abundant. Notable among these was a *Carpophaga* of large size and shining green plumage (*C. myristicivora*), interesting from the fact that it has hitherto been supposed to be confined to New Guinea and the true Papuan Islands. We shot two specimens of a cuckoo almost identical with our own well-known bird —its Eastern representative, in fact—but our chief prize was a new scarlet lory of great beauty, closely allied to *Eos riciniata* of the Moluccas, and intermediate between the latter and a bird of the same genus discovered by Mr. Wallace in Waigiou. With this single novelty we had to be content, for without an anchorage a longer stay on the islands was impracticable. We therefore re-embarked and sailed the same evening, setting our course between Popa and the Kommerust group for the islands of New Guinea.

CHAPTER XXI.

NEW GUINEA.

Our visit to New Guinea was to be confined to that portion claimed by the Dutch—the western half—which, from the variation in species from island to island and the peculiarity in the distribution of the Birds of Paradise, is perhaps the most interesting to a naturalist. It is here too that the Papuan exists as a pure type, unmixed with Mahori blood, as is the case in some places in the Eastern peninsula. Another, and not the least important of our reasons for selecting Dutch New Guinea, was that it was the nearest and most accessible part of the island. The *Marchesa* had already been two years in commission, and we were anxious to lose no time.

The Dutch boundary line, which coincides with the 141st degree of E. longitude, includes what is without doubt the finest portion of the island. Although but little explored, it is known to abound in excellent harbours; the coast line is deeply indented by the Macluer Gulf and Geelvink Bay; it boasts of several rivers, one of which—the Amberno—is of great size; and the interior is traversed by mountain ranges which in the distant future are no doubt destined to be the site of plantations equal in value to those of Java. The Arfak range which lines the western shore of Geelvink Bay attains a height of about 10,000 feet, and the Charles Louis mountains are the only instances in tropical Asia where the limit of perpetual snow is reached. British New Guinea, the southern division of the eastern half of the island, has also a high range in the interior of the south-eastern peninsula—the Owen Stanley mountains, but the rest of the country is for the most part flat and unhealthy, and the coast is encumbered with coral-reefs. Of the German territory little is at present known, except that a vast stretch of mountain and table-land exists at no great distance from the sea.

A glance at the map shows four large islands lying off the north-west extremity of Dutch New Guinea—Waigiou, Batanta, Salwatti, and

Stanfords, Geogl Estabt London

Misol—all truly Papuan, as is evidenced by the shallowness of the water separating them from the mainland, and by the character of their fauna. These, together with a certain portion of the adjacent northern coast, are known as the *Rajah ampat*,[1] and are nominally under the jurisdiction of the Rajah of Gebi—an island lying a little farther to the west. This potentate holds his authority from the Sultan of Tidor, who in his turn is a vassal of the Dutch, and it was chiefly in virtue of this fact that the latter assumed the suzerainty of Western New Guinea, to which, however, the voyages and explorations of Schouten, Vink, Joannes Keijts, and a host of other navigators thoroughly entitle them.

In the whole of the vast extent of country which thus forms the eastern limit of the Netherlands India there is not a single Dutch settlement of any kind. In 1828 a post was established at Triton Bay, but the unhealthiness of the climate and other reasons caused its abandonment seven years later, and, though it is occasionally visited, it has never since been permanently kept up. But at Dorei, in Geelvink Bay, a mission has been in existence since 1855, and, in spite of the converts having been little in excess of those who have sacrificed their lives in the cause, still continues its work. Here and in the neighbourhood are five Dutch missionaries—the only Europeans in the country—whose acquaintance we made at a later period of the voyage. Shattered in constitution from the pernicious climate, and depressed by the non-success of their work, their condition appeared to us deplorable, and one could not help regretting that their labours were not transferred to some more satisfactory field.

The long and lofty island of Batanta, which is separated from Salwatti by the narrow Pitt Strait, was the first land we made after leaving the Moluccas,—a dark green, shoreless mass of jungle looming through heavy rain-clouds. It is supposed to be uninhabited, but two or three huts were visible at the south-west end, and a further acquaintance with the island revealed the existence of two other small villages. Our intention was to anchor off Sagoien, an island at the entrance of the strait lying close to Salwatti, but not finding any anchorage, we eventually let go in the narrow strait which separated them,—a strip of water hardly three hundred yards across—and shortly afterwards I stepped ashore for the first time in the land of the Bird of Paradise, an event to which—without any hope of its being ultimately realised—I had looked forward from my earliest boyhood.

As is usually the case under these circumstances the actuality was disappointing. The woods were gloomy and dripping, and birds were to all appearances non-existent, for owing to some difficulties we had

[1] The *Rajah ampat*, or four rajahs, are those of Waigiou, Salwatti, and Lelinta and Waigamma in the island of Misol, but the term has come to be applied to the districts owning their authority.

with our hunters, the best part of the day was over. They had refused to go ashore, alleging that the natives were not to be trusted at this place, the malcontents being headed by Lokman, a man whom we afterwards found out to be a most incorrigible shirker. Luckily, however, we were helped out of our difficulty by Tahirun, who declared without much circumlocution that he lied, and we packed them off at once, telling them that supplied as they were with guns and "gun-medicine,"[1] they should be more than a match for any number of Papuans.

On entering the strait we had encountered a very strong tide flowing westward, but finding slack water at the anchorage, we had not anticipated any danger on this account, although the precaution of laying out hawsers astern had been taken. We turned in early, but were not destined to remain long undisturbed, the watch calling us on deck just after midnight. A current like a mill-race was setting past us, and catching the yacht on the port side, put such a tremendous strain on our stern hawsers that we were obliged at once to let them go. We then began sheering about in the wildest manner, tugging and straining at our anchors most unpleasantly, and dragging them from time to time. After a little while, however, they appeared to hold, and in an hour or two the tide slackened, for which we were not sorry. Our first night in New Guinea waters was an uncomfortable and anxious one, and it was nearly 5 A.M. before we were able to turn into our bunks again.

Our hunters next morning were more fortunate in their shooting, and among other birds brought in a young male of the exquisite little King Bird of Paradise, wearing a sober coat of dull brown like the female, instead of the brilliant red and metallic green of the adult bird. Usman appeared tottering beneath the weight of a large Cassowary (*C. unoappendiculatus*), its hairlike plumage almost black over the back; the neck and throat blue. The single small wattle and the lower part of the neck were yellow. It was the only bird of this genus that our hunters shot in New Guinea, but we afterwards obtained three live specimens in Andai and the Aru Islands.

In spite of these successes, we were anxious to leave so insecure an anchorage as soon as possible, as the tide had again begun to make with great strength, and weighing shortly after mid-day, we crossed the strait to Batanta in search of shelter. We cruised along slowly, as close inshore as we dared, and after one or two unsuccessful attempts, at length found an excellent little harbour in a small bay protected by a reef at the entrance. Here we anchored in perfect safety in 17 fathoms, within stone's throw of the shore.

From a little village a short distance to the eastward a few canoes

[1] *Ubat-bedil*, lit. gun-medicine, is the Malay term for ammunition.

put off to visit the ship, and we made acquaintance for the first time with the true mop-headed Papuan. No better description of his character could be given than that in Mr. Wallace's "Malay Archipelago." Arriving in New Guinea after a prolonged visit to the Malayan region, the differences between the two races are striking to a degree. These men, at first a little mistrustful, soon shook off whatever shyness they were possessed of, and clambering boldly up the side, overran the deck, talking and shouting loudly, and examining the many novel objects they saw around them. The striking of the ship's bell astonished them greatly, and was the signal for a burst of cheering, or for a noise which doubtless served as such in Batanta "meetings." They were apparently only acquainted with two Malay words, one of which—if I may be allowed the Hibernicism—was Portuguese (*faca*, knife) and the other cosmopolitan (*tembaku*), but for both of these articles they seemed anxious to barter some shells of the common Pearl Nautilus, and half a dozen coconuts—the latter a rarity in this part of the world. A roughly-carved wooden pillow or head-rest, much like what may be met with in any hut among the Zulus, lay in one of the praus alongside, and I began to bargain for it. The owner immediately asked for three knives, and on my refusing with an emphatic *tida*, indicative of astonishment and disgust at the exorbitant demand, the bystanders mimicked voice and gesture to perfection, and burst into shouts of laughter. The bump of veneration appears to be entirely absent from the cranium of the Papuan, who, as far as the white man can judge, is a noisy, ebullient gentleman of distinct socialistic tendencies, though not without a pretty humour of his own, as the following story will show. Its truth was vouched for by some of our Dutch friends.

During a cruise of a certain gunboat on the northern coast of New Guinea a village was touched at which, up to that time, had never been visited by Europeans. The captain, anxious to impress the untutored savage, arrayed himself in full uniform and landed in company with the surgeon, who was similarly attired. The natives crowded down to meet them in hundreds, and appeared tolerably trustworthy, but before long intimated that they were to pay a visit to the chief's house. This the captain resisted, fearing treachery, but in spite of his endeavours they were carried off, and his guard prevented from following. The hours passed away without a sign of the officers, and the boat's crew waiting for them began to fear the worst. Suddenly a crowd was seen approaching. It parted, and disclosed the gallant captain to his astonished sailors, bereft of his uniform and dressed in alternate stripes of red and white paint!

The south coast of Batanta yielded us very little in the shape of birds or insects, the jungle being so thick as to bar our progress at

every step. Collecting in localities of this kind is useless, and we weighed anchor on the following day to try farther to the eastward, coasting slowly along about a mile from the shore. At the extreme east end an unexpected gap in the coast revealed a deep bay beyond, but the entrance when viewed from the mast-head was evidently impassable, being beset with reefs and shoals. Steaming still farther, however, we were delighted to find another entrance devoid of dangers, and on steering in, we passed the island at the mouth on the port hand and entered a fine bay nearly four miles in depth. On its northern shore were, as we afterwards discovered, three admirable secondary harbours, but wishing to take advantage of every breath of air, we anchored at the head of the bay in seventeen fathoms, in as snug a berth as could be wished for.[1]

Our first ramble on shore was attended with but little success. We searched in vain in one of the lesser bays for a patch of beach on which to disembark, but the mangroves, which in these regions obliterate utterly all boundary between sea and land, met us at every turn, and ultimately, scrambling over their slimy roots and struggling up to our knees in the liquid ooze, we had to reach *terra firma* as best we could. The land rose steeply from the sea, and the jungle, dripping wet from the heavy rain which we had almost constantly experienced since our arrival in New Guinea, rendered our progress anything but comfortable. Forest rambles such as these, it must be confessed, are somewhat trying to the temper. Wet through with perspiration, each yard makes the already streaming traveller, if possible, still wetter, for every leaf encountered pours a little bucket of water upon him as he struggles through the mass of creepers that bar his path. Shooting and walking cannot be combined under such conditions, and almost the only method for the naturalist to obtain specimens is to post himself under some tree in fruit, and to wait patiently until the birds that are feeding upon its summit happen to come within range of his gun.

We returned rather disappointed to the yacht, and found that some of the hunters had already got back. They had shot nothing of any particular interest. Presently, however, Usman and his *compagnon de chasse* appeared, triumphant, carefully carrying a prize that we had hoped, but hardly expected to obtain—the curious and exquisitely lovely little *Diphyllodes wilsoni*, smallest of all the Birds of Paradise. Behind the head a ruff of canary-coloured feathers stands erect above the scarlet back and wings. The breast is covered by a shield of glossy green plumes, which towards the throat are marked with metallic green and violet spots of extraordinary brilliancy. The two centre feathers

[1] This bay, which we named after the yacht (Admiralty chart, No. 912), is a most useful anchorage for vessels going through Pitt Strait, where the tides are so strong that, if adverse, the passage is almost impossible.

WILSON'S BIRD OF PARADISE.
(*Diphyllodes wilsoni.*)

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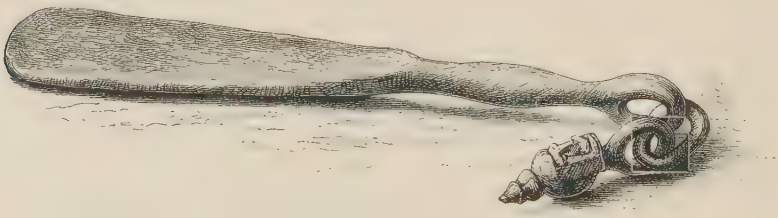
of the tail, prolonged for five or six inches beyond the others, cross one another, and are curved into a complete circle of bright steely purple. But the chief peculiarity of the bird is in the head, which is bald from the vertex backwards, the bare skin being of the brightest imaginable cobalt blue.[1] The *bizarre* effect thus produced is still further heightened by two fine lines of feathers, which, running lengthways and from side to side, form a dark cross upon the brilliant azure background. I could hardly make up my mind to skin this little ornithological rainbow, whose exquisite plumage it seemed almost a sacrilege to disarrange, but the climate of New Guinea allows of but little delay in this operation, and I set about my task at once. The bird had been scarcely injured by the shot, and I succeeded in making a perfect skin of it. We also added a hen bird of the same species to our collection. Its plumage is of a sober brown, as is the case with the females of all the Paradiseidæ, but like the male, the bare head is blue, although not nearly of so bright a colour.

Wilson's Bird of Paradise, which we had thus been the first Englishmen to obtain—the naturalists Beccari and Bernstein being the only others who have been fortunate enough to meet with it in its native haunts—is entirely confined to Batanta and Waigiou Islands, but though we afterwards shot it on the latter, it would seem to be much rarer there, and during Mr. Wallace's two months' visit he failed to obtain it. We found it frequenting trees of no great height at an altitude of seven or eight hundred feet above the sea, and there is no doubt that, like many of the family to which it belongs, it is very local in its distribution. This localisation is not necessarily permanent, but seems to be dependent rather upon the abundance in certain spots of the fruit in season, for most of the Birds of Paradise are in the main frugivorous, although occasionally varying their diet with insects.

We remained four or five days in Marchesa Bay, and were fortunate enough to secure ten specimens of the *Diphyllodes*. Of the Red Bird of Paradise (*Paradisea rubra*), which also inhabits Batanta, we shot four females and a young male. The full-plumaged male appears almost always to keep separate from the females, and we did not meet with a single one. Our spare time was fully occupied in making a sketch survey of the bay. Near its southern shore is a small islet, where a few Papuans had established themselves in a couple of little huts, which bore no resemblance whatever to the large, turtle-backed structures characteristic of the dwellers on the mainland and in Jobi Island. These men, who were evidently of unmixed blood, averaged from five feet seven to five feet nine inches in height, and were well built

[1] The figure in Gould's "Birds of New Guinea" gives no notion of the extreme brilliancy of the colouring of this part. It begins to fade almost immediately after death, is quite dull in four or five hours, and by next day has become entirely black.

about the chest. The hair, though worn in the usual mop, was perhaps hardly as full as that of the natives farther east. These huge crisp mops, which in their fullest development are as large as a guardsman's bearskin, and not unlike it, are alone sufficient to prove racially the distinctness of the Papuan. The hair is curiously stiff and wire-like, so much so that if the hand be laid on one of these compact and elaborately-tended coiffures, it meets with almost as much resistance as it would if pressed against a short-clipped European beard. The nose would be prominent if Nature allowed it, but, though it is in no way flattened, the tip is rapidly compressed towards the face, and the *alæ nasi*, being attached at a higher level than in the European, leave exposed a large surface of the septum, and the result is a certain Mephistophelian expression which is somewhat unpleasant. The legs, forearm, and chest are partially covered with short crisp hair, but the beard and moustache are scanty. One man in Marchesa Bay had a



WOODEN INSTRUMENT FOR STIRRING SAGO.

pair of pincers and plucked out any hair that displeased him, being evidently well acquainted with the looking-glass, but one of the sailors happening to show a mirror to a native on the south coast, the man gave a yell of terror which showed that it was his first experience of the article. None of the Batanta natives had the nose bored, but the ears were pierced and ornamented with small earrings of brass wire. The dress was a mere T-bandage of Malay cloth, the end passed once again round the body and left dangling in front or at the side. Of that of the women I cannot speak, as they were kept carefully out of our sight. The only tattooing that adorned their dark chocolate-brown bodies consisted in a few raised moxa-produced marks upon the chest, whose meaning, if they had any, we did not discover. In Dorei Bay they were a mark of distinction, only borne by those who had been on voyages or expeditions against their enemies.

The Papuan type is, on the whole, by no means a bad one, the jaw being far less prognathous than in the African negro, and the lips much thinner. The muscles of the leg, however, as in the latter people, are very ill-developed, though the foot is but little spur-heeled. One

characteristic of the race has not, as far as I know, been remarked upon—the peculiar odour attaching to the individual. This is quite *sui generis*, so far as my experience of natives goes, and utterly unlike that of the African. There would not be the smallest difficulty in recognising them in the dark merely by the sense of smell.

The ornaments of the Batanta Papuans were limited. They wore shell bracelets made from the Tridacna or Conus, and tight armlets of finely plaited grass, two or three inches in width, above the biceps. These served in lieu of pockets, for beneath them they tucked any little article they obtained from us, or their cigarettes, which, like the ordinary Malay *rokos*, were rolled in the delicate young leaf of some species of palm. One or two firebrands at which to light them were carried in every canoe. The canoes were outrigged on both sides, and provided in the bows with a turtle harpoon and line, the latter coiled up neatly in a little basket. Amidships lay the bamboo fish-spears, of a kind in use in most islands from the South Seas to Singapore, split at the top into five or six points, which are provided with barbs pointing inwards. They can either be shot from a bow, thrown, or used for stabbing. A bow and a bundle of arrows almost invariably completed the equipment.

While in Marchesa Bay we got quite friendly with an elderly and mild-mannered savage, who had also visited us at our former anchorage. He came on board every day and spent hours in examining the ship and her fittings, carrying his little son on his back meanwhile, as the sight of Dick, our large black retriever, terrified him greatly. We tried two or three times to photograph them, but they evidently did not like the operation, and our plates were failures. Finally we succeeded in getting an instantaneous portrait of them as they sat in the canoe, unconscious of what was taking place. From this old fellow, who knew a few words of Malay, I obtained a small vocabulary. The language, as I afterwards found, is identical with that spoken on the neighbouring coasts of the mainland, and the islands of Misol and Salwatti.

On the 23rd of October we left Batanta for Waigiou. In the Dutch chart the ominous word *Gevaren?* (dangers) and a little phalanx of dots and crosses indicated that for more than eight miles off the east end of the former island a network of rocks and reefs was supposed to extend. Captain Hakkers of the *Sing-Tjin* had, nevertheless, told us that the passage northwards was feasible by keeping tolerably close to the island, and we resolved to attempt it. Just at the most doubtful part, having caught sight of the bottom beneath the ship, a tremendous storm of rain burst upon us, so thick that we could hardly see a dozen yards ahead. We had been going dead slow before, but now stopped entirely until the weather cleared. This it did shortly afterwards, and

we proceeded without further incident. The passage is probably fairly clear, but there is no doubt that shallow water connects Batanta with the reef that is known to exist seven or eight miles farther to the east.

Our course lay due north to Momos, a village on the south coast of Waigiou just east of the entrance of Chabrol Bay, a narrow gulf twenty-six miles in depth which almost cuts the island in two. It is the residence of the Rajah, who, with a handful of Malays, leads a miserable existence, living upon a diet that is hardly better than that of the Papuans around him. The traveller in New Guinea who is dependent upon the country for his food, must make up his mind to a fare which is probably unequalled in its meagreness by that of any country in the world. Rice, fowls, eggs, coconuts, bananas, and half a score of other pleasant fruits—all these, which in the Malay region are easily obtainable, are here unknown, at all events in those parts where Malay influence has not penetrated, and the *menu* is reduced to sago and fish, with not too much of the latter. In Momos, however, there are a few fowls and such like delicacies, and we had not been long anchored before two or three praus visited us with what little was to be obtained in the way of food. Bartering is a tiring business. One man, perhaps, brings two eggs, another a lime, and so on. Batanta, if I remember rightly, produced us four eggs, for which we paid a needle apiece. At Momos they were rather dearer, but for a common four-penny clasp-knife we readily obtained two fowls.

The Rajah was away at the time of our arrival, having gone on a cruise to Saonek and Napriboi, two villages farther west along the coast, but he returned on the following day, and we handed him our letter from the Sultan of Tidor—an important-looking missive enclosed in a yellow silk cover. We requested him at the same time to provide us with a large native prau and men, in order that we might ascend the Chabrol Gulf. He seemed anxious to help us in every way, and it was arranged that we should start the next evening.

The village of Momos is a miserable-looking place, boasting of fifteen or twenty huts only, all of which are built on shore, contrary to the usual custom in this part of the world. The sea appears to be gaining on the land at this spot, for the black stumps of trees of some size can be seen beneath the water a few yards from the beach. The village had only been in existence three years, and neither coconuts nor bananas were to be had, although both were in course of cultivation. The clearing was only a few acres in extent, and a small swamp and dense jungle hemmed it in at the back. On the outskirts, where the fallen trees had remained unburnt, beetles were abundant, and we added several interesting species to our collection. One of the handsomest of all the Eastern bird-winged butterflies (*O. poseidon*, or some

MOMOS, WAIGIOU ISLAND.

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closely-allied species) was out in some numbers, and we caught several, though unfortunately their magnificent golden-green wings were in most cases torn and dilapidated. Butterfly-hunting in New Guinea, or indeed in any tropical jungle, is of all pursuits the most trying to the temper. These strong-winged Ornithoptera dash through the woods at a pace that seems intended as a direct insult to the unhappy naturalist, who, with every movement hampered by rattans and other climbers, can hardly, even by a stretch of the imagination, be said to be in pursuit of them. In some ways, perhaps, it is less tiring than shooting. Given a thick jungle, trees 200 feet high, and a mushroom-helmeted sportsman, it will be seen that comfort and a large bag are incompatible. A long training in the Sistine Chapel is necessary for this work. Absurd as it may seem, my spine in the region of the neck eventually became so sore that I was on more than one occasion compelled to give myself a rest.

In the afternoon the Rajah came off in his prau, flags flying and tom-toms beating in the usual approved fashion. He was accompanied by his only child, evidently a great pet,—a nice little fellow, whose heart we won by the present of a small musical-box. We had a long *bichara*, and learnt that the praus—for we were to have two—were to be ready for us the same evening. We had settled to divide our party, one of us remaining with the yacht at Momos, while the others, taking six of the hunters, were to explore Chabrol Bay; and accordingly just before midnight we got our necessaries on board the boats and started.

Our prau was manned by ten men, two of whom were Malays, the rest coast Papuans of mixed descent, and half-breeds of Papuan and Malay parentage. We were lulled to sleep by the monotonous splash of the paddles, and early on the following morning awoke to find ourselves lying in a small mangrove harbour on the western shore of the gulf, at the mouth of a little stream. We worked the forest from sunrise till late in the afternoon, and on reassembling at the praus and laying out our spoil found that we had not done badly. Among the parrots were the curious Aprosmictus (*A. dorsalis*), gorgeous in crimson and cobalt dress, with a broad and graduated tail nine or ten inches in length; the still more brilliant *Lorius lory*, which was perhaps the most common of any; and Wallace's *Eos*—a brush-tongued lory of great beauty. In New Guinea the pigeons, equally with the parrots, have their fountain-head, and the number of species is marvellous. The Pigmy Doves are especially numerous, and exhibit a diversity of colouring that an Englishman accustomed only to the sober plumage of European species would hardly credit. The "lively iris" which "changes on the burnished dove" is indeed almost entirely absent from the tropical genus (*Ptilopus*) to which I refer, but it is replaced by yellow, orange, scarlet, mauve, magenta, and a score of other shades

which perhaps are not equalled in any other family for variety. On this occasion we had the largest and the smallest of the pigeons among our collection—the huge Goura or Crowned Pigeon, now a familiar object in the Zoological Gardens of almost every capital, weighing perhaps four or five pounds, and a tiny Ptilopus (*P. pulchellus*), the size of a lark, grass-green in colour, with the forehead bright magenta.

Two or three hours before daybreak we again started, in spite of having been up far into the night skinning and making notes of our specimens, and after some hours' paddling arrived at a little village of four huts built over the water and connected with the shore by rough bridges. The inhabitants were Papuans, apparently of pure blood. This place, which lies about eighteen or twenty miles from the mouth of the gulf and on its western shore, also afforded us some good birds, but as we could see and hear nothing of the Red Bird of Paradise, of which we were in search, we left it late in the evening and crossed the gulf in a south-easterly direction for a small river known to our men. The weather had hitherto been favourable—a rarity in these islands, where daily rain appears to be as much the rule as the exception,—but when half-way across a heavy thunderstorm burst over us, and the rain descended in a perfect deluge. We had taken the precaution of getting most of our belongings under cover before it began, but even in the steamy heat of the New Guinea climate rain is almost as unpleasant and chilling as it is elsewhere, and we were glad enough when it had ceased. A little later we sighted the shore through the darkness and came to anchor.

At daylight we found the mouth of the river, which, as far as we could judge, appeared to be the Ham River of the officers of the *Coquille.*[1] We ascended the stream, which was of no great size, for about two miles, and came to a village of four huts. The natives here were Alfuros[2] or aborigines, distinct even from the Waigiou Papuans of unmixed blood, but dressed in the same way and wearing the same ornaments of plaited grass and clam shell, which indeed seem to be common to all of this race. Mr. Wallace did not meet with these people, and indeed tells us that Waigiou "possesses no Alfuros,"[3] but there is no doubt of their existence, and I was able to obtain a small vocabulary of their language. There are altogether three languages or dialects spoken in Waigiou. The coast patois I have already alluded to. It supplies, as it were, the place of Malay as a general means of communication, and is in use on the seaboard of the greater part of North-west New Guinea. It appears to be Nufoor with an admixture

[1] Duperrey, during his voyage in this ship, partially explored Chabrol Bay, but it does not appear to have been visited since.

[2] This is the general term in use in the East Indian Archipelago for aborigines, and has no ethnological signification.

[3] *Op. cit.* p. 528.

of various foreign words. But, in addition, most of the islands—Waigiou among the number—have each a distinct language spoken by the coast dwellers, which in its turn differs from that of the Alfuros or wild inhabitants of the interior. I was unfortunate enough to lose the greater portion of the vocabularies collected in Waigiou, but even the few words I still have remaining show sufficiently the distinctness of these three languages.

These Alfuros were phtheirophagous, going over the dense mat adorning their heads with the most praiseworthy perseverance; layer after layer being worked through systematically with the aid of a long bamboo comb. Their method of obtaining fire was new to all of us, the spark being struck from the hard, siliceous exterior of the bamboo and a fragment of pottery, which latter article they had probably obtained from the coast tribe.

We searched the woods in vain for adult males of the Red Bird of Paradise. Females and young males, which cannot be distinguished from one another, were to be met with tolerably frequently, and we shot several, but of the lovely full-plumaged male we never even caught a glimpse. We had nevertheless no cause to grumble, for we succeeded later, and our cruise up the gulf, short as it was, was so far fortunate in that it furnished us with specimens in nearly every stage of development, and before we left the island we had a complete series, showing the various changes in the plumage from the sober-coloured young bird to the beautiful and quaintly ornamented adult.

The Red Bird of Paradise is, like Wilson's Diphyllodes, entirely confined to the two islands of Batanta and Waigiou. It is an allied species to the well-known *Paradisea apoda* of the Aru Islands, and several other kinds,[1] of which one of the most beautiful is a recently-discovered species from the D'Entrecasteaux Islands of South-east New Guinea, but the long sub-alar plumes—the chief ornament of this genus—are in the Red Bird hardly so much developed. Their colour, however—a deep crimson with snow-white tips—is not less beautiful. The chief peculiarity of the bird lies in the extraordinary development of the two median tail-feathers. In the allied species these are prolonged into two nearly straight wire-like appendages, but in the Red Bird of Paradise they are ribbon-like in form, much resembling split quills, and hang in a graceful double curve for nearly two feet beyond the rest of the tail-feathers. The series of young birds we obtained in Batanta and Waigiou enabled us to follow out the development of these curious ornaments. The two middle tail-feathers are at first in no way different from the rest, but presently they begin to elongate, and after

[1] *Paradisea minor* in North-west New Guinea and the islands of Misol and Jobi; *P. novæ guineæ* in the region of the Fly River; *P. raggiana* in the south-east peninsula; and *P. decora* in the D'Entrecasteaux group.

a time the web of the feather becomes eroded along the shaft, though still remaining webbed in the form of a little spatula at the apex. This spatula indeed may sometimes be seen in the full, or nearly full, plumaged bird. In the process of elongation the now bare shaft becomes thin and widened, thought still remaining of a brown colour. Finally its sides gradually incurve until the quill in section presents a half-circle, and the brown shade turning into a jetty black completes the change.

Of the nesting habits of this, as indeed of the other birds of Paradise, we in vain tried to discover anything definite, and though both here and in other parts of New Guinea we offered large rewards to any one who would show us a nest, the eggs and nidification still remain as much unknown as when Peter Heylyn wrote his "Cosmography" and spoke of "the bird called *Monicodiata*, which having no feet is in continual motion: and (it is said) that there is a hole in the back of the Cock, in which the Hen doth lay her eggs, and hatch her young ones. I bid no man to believe these Relations," he writes; "for my part, I say with *Horace*,

"'Quodcunque ostendis mihi sic incredulus odi.'"

We devoted the day to collecting and the evening to skinning, according to the usual routine, and at night our praus, illuminated by dammar torches, presenting a busy scene until a late hour. The tall trees of the jungle caught the light here and there and stood out in strong relief against the inky darkness of the forest beyond. Our Malay hunters, squatting on the ground, held the heads of the birds they were skinning between their toes like monkeys, and worked away steadily, hardly uttering a word, while the woolly-haired Papuans sat watching them, smoking their palm-leaf cigarettes and jabbering noisily. Now and again the weird cry of some night-bird silenced them for a while. The whole scene was romantic enough, or would have been had not certain realities of existence prevented it. The night was suffocatingly hot, and we did not need to be reminded that we were within a mile or two of the equator. The mosquitos descended upon us in swarms, effectually banishing sleep, and, to crown our discomfort, our legs were covered with quantities of ticks of almost microscopic minuteness, which, in the amount of irritation they produce, beat the very similar little Ixodes which haunts the coast of South-east Africa. Tired, irritable, and bathed in perspiration we greeted the appearance of day with delight.

We started early on our return journey to Momos, and for the first time had an opportunity of seeing the scenery of the gulf. The most striking part is just within the entrance, where innumerable rocks and islets dot the calm surface of the water. Some of these are

SCENE IN CHABROL BAY, WAIGIOU ISLAND.

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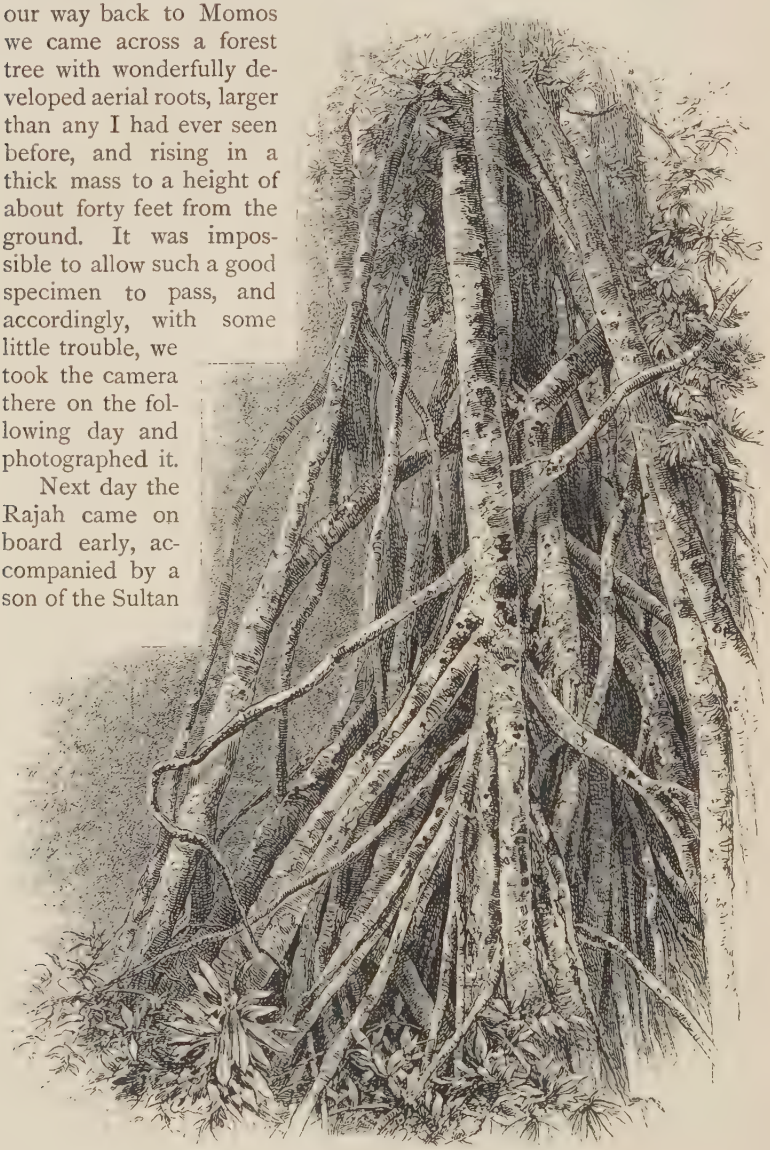
quaintly box-like in shape, with perpendicular coralline cliffs, which at the base are in many cases deeply undermined by the sea. For nearly two miles we passed through a perfect nest of these jungle-clad islands, the average breadth of the strait being from two to five hundred yards. Looking back, the "Cone de Buffle" of Duperrey was visible, rising as a sharp peak to the northward above the little archipelago, the varied beauties of which made us regret that we had not more time to explore them.

We were desirous of taking in water at Momos, and on inquiring of the Rajah he told us of a small stream which ran into the gulf on the eastern side, just within the entrance. Its mouth was hardly visible from the sea, but we at length discovered it, and entering a narrow channel completely overarched by trees found a little stream of good water running brightly over a pebbly bed. Up this we poled our dinghy, and hearing the noise of a waterfall in the distance, I left the boat and walked to it through the forest. It was only a few feet in height, but the richness of the ferns and other vegetation combined to render it one of the most charming spots I saw in our New Guinea cruise. It will always remain deeply impressed on my memory, for such places are after all rare in these regions, or at least rarer than is generally supposed by those to whom the tropics are unknown. The individual beauty of any one plant or tree may be absolutely perfect, but the very exuberance of the vegetation—the *embarras de richesses*—spoils all, and the traveller is chiefly conscious of a tangled mass of greenery presenting few characteristics, except impenetrability, to his mind.

Next day, the boats having gone round to the watering-place, I endeavoured to reach it overland with a half-caste Papuan as guide. As I was starting, one of our hunters came in, bringing a male *Paradisea rubra* which, with the exception of the beautiful red tufts, was in full plumage, and I learnt that he had seen others at no great distance from the village. The forest, however, hardly yielded me a single bird for a long time, with the exception of a Tanysiptera (*T. galatea*), a lovely racquet-tailed kingfisher not uncommon in North-west Papua. Presently a male Paradise bird flew past me, with long tail-feathers, but, as far as I could see, with the side plumes only partially developed. My guide now commenced calling the birds, placing his hand to his mouth and producing a sort of plaintive croak, loud, and of rather high pitch—an almost exact imitation of their note. We waited silently and with no result for some little time, and then continued our way, but I had hardly started before a full-plumaged male bird perched upon a bough within twenty yards of me. These are the moments when one is, as a matter of course, entirely unprepared. I was climbing the face of a little precipice ten or twelve feet high, holding

on with one hand, and long before I could get free the bird had flown. It was—alas! the only chance I had during the rest of our stay. On our way back to Momos we came across a forest tree with wonderfully developed aerial roots, larger than any I had ever seen before, and rising in a thick mass to a height of about forty feet from the ground. It was impossible to allow such a good specimen to pass, and accordingly, with some little trouble, we took the camera there on the following day and photographed it.

Next day the Rajah came on board early, accompanied by a son of the Sultan



TREE WITH AERIAL ROOTS, WAIGIOU.

of Tidor, who had just arrived in a prau from the coast of the mainland in the neighbourhood of the Macluer Gulf. Instead of wearing the usual Malay dress, which is both dignified and becoming, he was dressed in a suit of rusty black cut in European style, and the effect was anything but imposing. He was owner of two or three small praus which traded in dammar, tortoise-shell, and Paradise birds on the New Guinea coast, and hearing that he had brought some birds' skins to Napriboi—a village beyond Saonek which we were desirous of visiting—we arranged to go thither without loss of time, and weighed anchor shortly after mid-day. A great part of the south coast of Waigiou is guarded by a barrier-reef, inside of which we kept for the whole distance, at times approaching the shore almost within stone's throw. Abreast of Saonek Island we altered course to the northward, and shortly afterwards came to anchor in the little bay of Napriboi.

Napriboi, which, if not identical with Mr. Wallace's Muka, must be very close to it, was in every respect a more attractive place than Momos. It consisted of half a dozen huts built over the waters of the bay, remarkable for having high-pitched roofs, an unusual shape for huts among the Papuans. In one of these the Rajah Mudah had his collection of birds, which were of four species only—the Lesser Bird of Paradise, the Twelve-wired *Seleucides*, the little scarlet King Bird, and the Magnificent (*Diphyllodes magnifica*)—none of which we had as yet obtained in full plumage, although we had shot some females and immature males of the King Bird. They had all been brought from the neighbourhood of the Macluer Gulf, and having been skinned by the natives, were perfectly useless to us, the legs of nearly every one having been cut off, and the skins being much moth-eaten. I had hoped possibly to find some rarity among them, but was doomed to disappointment.

Around Napriboi but little clearing had been done, for the Papuan, unlike those of Malay race, is no agriculturist, and is content to live from hand to mouth on sago and what few fish or turtle he can manage to catch. A few coco palms, however, had been planted, and it was a treat to us to get some of the fresh young nuts, the "milk" of which is the healthiest and at the same time the most agreeable drink in the tropics. The forest was an open one, and not good for collecting, but the isolation of the trees afforded us opportunities for photography which do not often occur in these islands.

Looking southwards towards Batanta across Dampier Strait, the dark hummocks of King William Island or Mios Mansuar are visible, surrounded by a little archipelago of lesser islets. The intervening sea, little known to Europeans, is a network of shoals which render the northern passage extremely dangerous, and the few ships which

pass these wild and lonely shores always hug the line of reefs on the Batanta coast. In the case of Batanta and Waigiou we have an excellent example of the rule—to which there are few exceptions—that the length of time that any island has been separated from the mainland bears more or less relation to the depth of the intervening sea. Batanta is in close proximity to Salwatti—abording it for a distance of more than twenty miles, the strait at no part being more than five, and in some places not more than two miles across. Waigiou, on the other hand, has five and twenty miles of intervening sea between its nearest point and Batanta. It might reasonably be

AT NAPRIBOI.

supposed that the fauna of Batanta would correspond closely with that of Salwatti did we not know that the existence of a strait, however narrow, is an almost insuperable barrier to the passage of most of the forest-haunting species. The great depth of water in Pitt Strait renders it probable that the separation of Batanta took place at some long past period, while the shallow soundings and numerous reefs existing in Dampier Strait, together with the fact that Waigiou shows signs of recent subsidence, indicate that the latter island was connected with Batanta at no very remote date. A consideration of the avifauna of the two islands bears out this theory completely. Several species, which do not exist in Salwatti—among them the Birds of Paradise to which I have alluded—are found in Batanta, but they also occur in

Waigiou, and, ornithologically speaking, the two latter islands are practically identical.[1]

Returning next day to Momos, we prepared for our departure and paid off the men who had accompanied us to Chabrol Bay. We had got beyond the range of money, and they received their wages in cloth, tobacco, and knives. We left two hunters behind us with strict injunctions to search for the Rhipidornis and full-plumaged specimens of the Red Bird of Paradise, and at the same time made arrangements to send Lokman—a lazy rascal who never shot more than six birds a week—in a prau with another hunter to Salwatti Island. They carried a letter to the Rajah of Samatí, requesting him to send out natives to try and secure us living specimens of the Twelve-wired Paradise Bird, and intimating our intention of visiting the island on our return. To our friend the Rajah of Waigiou, who, accompanied as usual by his little boy, had come to bid us adieu, we gave some Japanese silk and a few bottles of Hollands. The old gentleman was pleased, but evidently had something on his mind. At last it came out. "Could we give him an old coat, or even a pair of trousers?" A long course of travel has made me intimate with several kings and other such exalted personages, but most of them have disdained these garments like the rest of their subjects, and we did not carry them among our "trade." A search among our wardrobes was, however, at length successful, and as we slowly moved from our anchorage *en route* for Geelvink Bay, the Rajah stepped on board his prau amid a burst of tom-tom playing, carrying a pair of Savile Row inexpressibles beneath his arm.

[1] The wide-ranging King Bird (*Cicinnurus regius*) is not found in Waigiou, but it is believed to exist in Batanta. While in the latter island we on two occasions saw a bird closely resembling it, but it may possibly have been the lovely *Rhipidornis Gulielmi tertii*, which—although its native country is still uncertain—is supposed to be found in Waigiou. Only four specimens of this bird have ever been obtained, and our search for it and inquiries among the natives were fruitless.

CHAPTER XXII.

NEW GUINEA (*continued*).

EAST of Dampier Strait high seas are frequently met with, the coast of New Guinea being here exposed to the North Pacific, and on clearing the protection afforded us by Waigiou we encountered worse weather than we had had for many weeks. The gloomy sky, rough sea, and sheets of rain might have recalled the English Channel in November had it not been for the thermometer, whose steady register of 85° was sufficient to dispel any such illusion. At daylight on the 1st of November we found we had slightly overrun our distance, and altering our course to S.S.W. we soon made out the island of Manaswari at the entrance of Dorei Bay. As we approached, the weather grew brighter, and we caught sight of the Arfak Mountains, which had hitherto been hidden in gloomy clouds. Rounding Cape Mamori, on which the sea was breaking heavily, we ran immediately into smooth water, and a little later anchored in twenty fathoms close to the three villages of Dorei.

Dorei Bay, well known as the settlement of the Dutch missionaries and the residence of Mr. Wallace in 1858, is protected on the east by the islands of Manaswari and Meosmapi. The latter is uninhabited, but on Manaswari are the three villages Menubabor, Mansinam, and Saraundibu, and the house of Mr. Van Hasselt, the oldest missionary. Dorei itself includes the villages of Ambobridoi, Kwawé, and Rasamberi, and is placed on the northern shore of the harbour about two miles distant from the island. Here Mr. Jens and Mr. Van Balen are settled, and a mile beyond—close to the head of the bay—is Mr. Bink's house, behind the villages of Rodé and Monokwaré. The whole native population numbers, or is supposed to number, over three thousand persons.

We were soon surrounded by native praus and boarded by Messrs. Jens and Van Balen. We had brought a mail for them, which had been waiting for weeks at Ternate before it got into our hands. When they had received the last one we did not inquire, but it was quite

touching to see the poor fellows rush at their letters, excitedly exclaiming, "This is from my mother!" "Here is a book from my sister!" and so on, as they held them up. All these missionaries have been chosen from the working-class, as being more fitted to instruct the natives in the useful arts, and can speak little but their own and the Nufoor language. Mr. Van Hasselt, however, having married a German lady, spoke that language fluently, and could also manage a little French and English. He had lived no less than twenty years at Dorei, but the terrible effects of the climate were only too plainly apparent. Bent nearly double, and so enfeebled by repeated attacks of fever and other tropical disorders as to be incapable of much exertion, he appeared to us to be over seventy years of age, and we were astonished to learn that he was only forty-seven. The continued heat and excessive rainfall of this part of New Guinea, especially when combined with poor diet, make it almost as unhealthy as West Africa, and the list of names of the missionaries who have died here is a long one. I am, of course, speaking only of the pestilential mangrove-clad coasts. Inland, on the slopes of the great mountains, the climate is no doubt very much healthier, although the rainfall at certain seasons must be enormous.

Mr. Van Hasselt's house on Manaswari is the sole bit of civilisation in Dutch New Guinea. Built a few yards only above a pleasant coral-beach in the middle of a grove of coco palms, the neatness and order prevailing ought at least to have had some effect as an example to the natives. Flowers are planted round the house, and ferns and orchids hang in the verandah. In front is a small lawn and a flagstaff, and at the back a good vegetable garden and a cattle kraal. At a little distance stands the small building which acts as church and schoolroom, erected by Mr. Bink and Mr. Van Hasselt with their own hands. A few children were brought out for our inspection. They sang hymns remarkably well, and could read and write, but it seemed to us a pity that the lesson of our Saviour's life on earth was less taught than the dry details of Old Testament history.

Judging merely from the inside of the schoolroom, the Dorei mission would appear to be a success, but in reality it is to be feared that it is not so. The entire result of twenty-eight years of mission-work and the sacrifice of many lives is but sixteen adult and twenty-six child converts. Children are bought by the missionaries whenever possible, and brought up as Christians from their earliest infancy, and it is in this way alone that any real success is possible. It is not easy to obtain them, however, since the natives are unwilling to sell their own, and hence orphans or the offspring of slaves alone come into the hands of the missionaries. The Papuan is bold, self-reliant, and independent, and no rapid conversion to Christianity, as has been the case in some of the Pacific Islands, is ever likely to take place in New Guinea. As

far as our short experience of Dorei permitted us to form an opinion, it seemed to us that the mission had little or no influence over the natives. The latter have, of course, become quite accustomed to Europeans, and leave them unmolested, but their habits and customs remain unchanged, and at the time of our visit the *Rum-slam* or idol-house at Monokwaré, which had been accidentally destroyed by fire, was being rebuilt in all its former hideousness and indecency.

Mr. Van Hasselt was eager to learn what news we could give of the civilised world. We had little enough to tell, with the exception of the eruption of Krakatau. Of the appalling amount of destruction it had caused we were at the time unaware, but we gave him the few particulars which had reached Gorontalo. He at once told us, greatly to our astonishment, that the noise of the explosions had been audible at Dorei, and going into the next room brought his diary, in which, under date of August 27th, an entry had been made to the effect that sounds as of distant cannonading, which they had imagined to proceed from some volcanic eruption, had been heard on that day. The natives, we were told, had also noticed it on the previous day—when, in fact, the outburst was at its height. By the missionaries the volcano at Ternate or in some part of the Moluccas was supposed to be in action. It enables one partially to realise the terrific nature of the eruption when the map shows Dorei to be distant 1710 miles from Krakatau. It seems almost incredible that explosions proceeding from Hecla could be audible in Rome, or that if a volcano were suddenly to make its appearance in Timbuctoo we might be conscious of the fact in England.[1]

We spent a good deal of our time in Dorei Bay in trading and visiting the houses of the natives, and each day our decks were crowded with dozens of mop-headed and nearly naked savages, anxious to obtain our cloth and other goods in exchange for spears, bows and arrows, live lories and cockatoos, and little carved wooden gods. The arrows are unfeathered, but the little boys, who are constantly practising with miniature bows and arrows, make some attempt at feathering the latter —which are constructed from the mid-rib of a palm frond—by leaving some of the leaf at the base. No poison is used, except among the Arfak tribes. The arrow-points are of cassowary or human bone, or of hard wood, but the most effective are made of the needle-pointed and barbed prickle of some species of Sting Ray. At Dorei iron-tipped spears were not uncommon, but the points were more frequently of bamboo, not unlike a cheese-scoop in shape. Very few skins of the Paradise birds were brought off for sale, but the numerous parrots we bought soon gave the ship the appearance of a large aviary. Most of

[1] When at Salwatti Island at a later period of our voyage we learnt that the eruption had been very plainly heard there also.

MANSINAM VILLAGE AND THE ARFAK RANGE, DOREI BAY.

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them were the common white Cockatoo (*C. triton*) and the still commoner Trichoglossus which is found over the whole of this part of New Guinea, but among them we found a rare bird of the latter genus (*Trichoglossus rosenbergi*), and several other beautiful lories, which we were glad enough to obtain for coloured cotton handkerchiefs or a yard or two of "Turkey red."

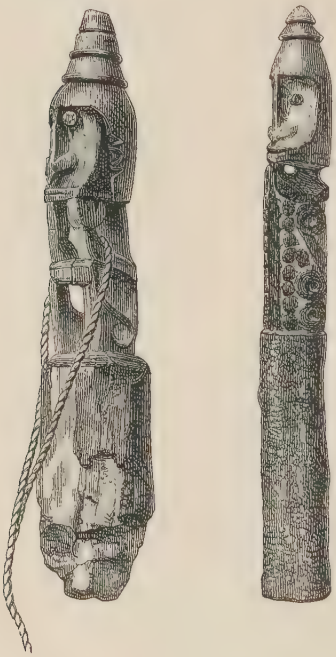
The Dorei Papuans vary so much in colour and in type of feature that it is evident that many are of mixed race. Some wear the nose-bar, which is about an inch in length and of the thickness of a

NATIVE OF AMBOBRIDOI, DOREI BAY.

quill. It is known as the *koor* or *keru*, according as it is made of bone or shell. Among Europeans its use would in very few individuals be possible without discomfort, for it is thrust through the septum of the nose, and protrudes as far as the *alæ nasi* on either side, but, as I have already mentioned, the high attachment of the latter on the cheek in the Papuan race leaves plenty of room for the ornament.[1] A still more striking feature is the comb, which is rarely or never absent from the heads of those who are possessed of a well-grown *chevelure*—a bamboo stick about two feet long split at the end into five prongs. The handle projects far over the forehead, and is ornamented with feathers or round discs of pith threaded edge to edge on a secondary stick. Across the chest, bandolier-fashion, is slung the *saré* or shoulder-strap, a woven

[1] This peculiar shape of the nose is well represented in their *korowaar* or so-called gods, and all carvings in which the human features are reproduced.

band of coloured grass half an inch in width, and clam-shell bracelets and tightly-fitting armlets complete the decoration, as in the case of the Batanta natives. In almost every part of New Guinea that we visited individuals with quite short hair were often to be seen. Some of these were perhaps unable to grow the enormous mop from which the Papuans—"the frizzly-haired people"—derive their name, but in many cases it is a sign of mourning.



PAPUAN AMULETS.

Although tattooing, as we understand it, is not common, numbers of the Nufoor people[1] are decorated with raised scars, such as may be seen in many African tribes. These are produced by the repeated application of red-hot pointed sticks—the continuous moxa producing a lump of gristly hardness beneath the skin. A favourite seat appears to be the shoulder, whence they are sometimes extended downwards so as to meet on the breast in a V-shaped pattern. After voyages or feats of prowess they add one or two of these marks, and we noticed that a young man from the island of Biak, who appeared to be regarded as a person of some importance, and was certainly a very fine-looking fellow, was liberally decorated with them.

The equipment of a Papuan would not be considered complete without certain amulets slung around his neck. These are small sticks about six inches long, carved at the upper end in rough imitation of the human figure. One is to guard them in a land journey, another on a voyage; one wards off the evil designs of the dreaded Manuen—the malicious spirit; a fourth preserves them from sickness, and so on, until the wearer is carefully protected from each and all of the "thousand natural shocks that flesh is heir to." But in order that they should be efficacious, he must be able in a certain measure to predict these

[1] Dorei Bay is, as it were, the capital of the Nufoor tribe. They inhabit the north-west coast and some of the islands in Geelvink Bay, and, according to their legend, originally came from Nufoor Island (Long Island of the English charts). They claim to have been the first discoverers of fire, which was given to their ancestors by a magician. On seeing it they immediately exclaimed "Nufoor,"—*foor* meaning fire, and *nu* being the dual "we two."

misfortunes, for the peculiar virtue of which the amulets are possessed is only exerted when they dangle between his shoulder-blades, where it is not considered proper habitually to carry them. Thus, although the owner cannot always have his Manuen charm at work, he may look out his amulet for a voyage on starting for it, or put the one suitable for a headache in action after having dined unwisely. It is needless to say that shipwreck, illness, or any misfortune which may occur is not due to the inefficiency of these useful little articles:—it is merely the result of their not having been put in use at the right moment.

The Manuen are the Papuan bogies,—evil sprites who lurk in the woods and lure the passer-by to destruction. Once under their spell the unhappy victim is beyond human aid. The Manuen changes his arms into his legs, and in this reversed position the doomed native is compelled to dance. He is then released and disenchanted, but returns home only to die. In spite of their power to enter houses and, unseen, to strike the inhabitants with sickness, the Manuen are only able to exert their evil influence over a restricted area, and many localities are said to be free of them. In one form, indeed, they are not unknown to European physicians. When the mists rise in the evening the little children are brought into the huts lest the Manuen—the malaria, as we call him—should touch them. He is, no doubt, the same spirit who compels the Dusuns of Borneo to build their houses on slender piles—to make them temporary, not permanent residences, in other words.

Below the mission-house on Manaswari are the three villages I have mentioned on a previous page. They are so closely situated as in reality to constitute but one, and stand fifty yards or more from the shore, to which each house is connected by a bridge of so sketchy and insecure a nature as to render its passage by a booted European almost impossible. Even more dilapidated still are the houses themselves, built as they are of rotten mats, bits of old praus, *gaba-gaba*, or anything that comes to hand. So treacherous is the floor, with its gaping holes and the loose sticks of which it is composed, that, as one of our sailors remarked, one should be "bird-rigged" before trusting to it; but this feature is not without its advantages, for dirt and rubbish of all kinds can easily be dropped through into the sea beneath. These rickety dwellings are of very large size—for, like the Dyaks, several families live under one roof—and their appearance is peculiar owing to their resemblance to a turtle's back, from which, indeed, it is said that the idea for their construction is borrowed. To each house there are two landing platforms—that nearest the shore for the women, who gather there to chat and busy themselves over their domestic duties; the other for the men and boys. A broad alley-way, which serves as a

sleeping-place for strangers, divides the building in half, and from it open out the rooms, like the cabins in a steamer.

If my reader were to enter one of these apartments he would have no wish to accept the hospitality of a Papuan host. It is unlighted probably, except for some accidental gap in the dilapidated wall, and the smoke of the fire—which is placed on a large flat stone—finds its way through the roof as best it can. The furniture is not extensive. A wooden drum, a few mats, some fish-spears, an abundance of bows and arrows, some native-made pots and wooden bowls, and a couple of admirably carved head-rests or pillows would be in nine cases out of ten a full inventory. The wants of a Papuan are few. The heavy tropical rain must stream through the ill-kept roof, but he does not mind, for there is no carpet to damage, and the water has but little more difficulty in finding its way into the sea beneath. He is apparently quite satisfied as long as the holes in the floor are not so large as to permit of his disappearing in like fashion in his sleep.

One article of furniture there is which is found in every room—the *korowaar*, a carved wooden image a foot or so in height, the hands generally represented as resting on a shield, which, like many of the Papuan carvings, is often of very good design. These are not idols, as they have been represented to be by some travellers,[1] but the media by which the living hold communication with, and are kept in memory of, the dead. If any individual die a *korowaar* is immediately constructed, for unprovided with an earthly habitation his spirit could not rest. On the commencement of the carving a feast is held, and as each portion of the image is completed a dance commemorates the occasion. When finished the image is either placed on the grave or carried to the home of the nearest relation, where it is treated with great respect. On every occasion of importance—on fishing excursions, in sickness, on undertaking a journey, and so

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[1] The rarity of idols—I use the word in its English and not in its classical meaning—must strike every one who has been brought much in contact with savage tribes. In almost every case the images are merely representations of the deity worshipped, like our own crucifixes, and are not supposed in themselves to be possessed of any supernatural power.

forth—it is consulted, and if nothing take place it is considered a sign of the approbation of the deceased. This is not always the case, as might be supposed, for the consultant sometimes holds the *korowaar* in his hand while propounding his question. Presently his arm vibrates; it shakes more and more until the whole limb is in a state of convulsive agitation. "He speaks; he speaks," is the cry, and the disapproval of the departed spirit is evident. Should the answer turn out incorrect the augur not infrequently loses his temper, and the unlucky image receives a blow which knocks him from one end of the hut to the other. But in spite of these disappointments the natives do not lose their faith in their *korowaar*, and those that are brought for barter have generally belonged to some one who has died, or are old ones whose names have long ago been forgotten.[1]

Two *Rum-slam* or "idol-houses" were in existence until lately in Dorei Bay, one at Mansinam and the other at Monokwaré, but the former was destroyed by an earthquake and the latter by fire,—events of which the missionaries have naturally not been slow to take advantage, for they have extorted a promise that, should a like fate befall the new idol-house which was being constructed at Monokwaré at the time of our visit, no attempt at rebuilding it for the third time would be made. A single pile of the old temple was alone standing when we examined the spot—a gigantic human figure entwined by a snake. We learnt from Mr. Bink that all the piles were of like nature, and that the temple was thus supported by a series of aquatic Caryatides, alternately male and female.[2] Within were other carved wooden figures of much the same kind—grotesque and indecent—intended to represent the ancestors of the Nufoor tribe, and known as the *Mon* or "first people."

The construction of these *Rum-slam* and the carving necessary for the piles is, as may be imagined, an affair of some time, and the images had not all been finished when we were at Dorei. At a house in the village of Rodé we found two lying in the centre passage,—huge tree-trunks thirty or forty feet in length carved in representation of a male and a female figure. Like the solitary statue to which I have just alluded, the latter had a snake encircling her neck, its head lying upon her breast. This was Gobini, a mythological character, whose history we learnt from one of the natives standing by. Young and beautiful, her hand was sought in marriage by many suitors, but in vain. One day, however, permitting a snake to share her couch, she became pregnant, and

[1] Mr. Wilfred Powell ("Wanderings in a Wild Country," p. 248) mentions the existence of images similar to the *korowaar* in New Ireland. Unlike those of the natives of North-west New Guinea they are of chalk, and are kept in a small "mortuary chapel." The same superstition—"That the ghost must have some habitation on earth or it will haunt the survivors of its late family"—is, however, the cause of their construction.

[2] Stabat ex utraque parte templi, ab aditu paullo distans, simulacrum ingens maris feminæque in ipso coitu junctorum.

was driven from home by her parents. She resolved to seek her fortune in distant lands, and embarking in a small prau set sail, with Nori the snake on the look-out in the bows. Nearing Ambepon, at the head of Geelvink Bay, Gobini perceived a large oyster with a pearl in it at the bottom of the sea, and told Nori to jump overboard and get it. Yielding to her wish he did so, but paid for his rashness with his life, for the oyster, closing his shell, caught the snake by the head, so that he struggled in vain to escape. Now the land in the neighbourhood ran out into a promontory, which was very narrow, and in the vigorous lashing of his tail to get free Nori cut it through. "And the truth of this everybody knows," concluded our informant, "for Ambepon remains an island to this very day."

This story led to another, which I afterwards learnt to be a favourite legend of the Nufoor people. The native, perching himself upon Gobini's statue, related it at full length to Mr. Bink, who translated it for us, sentence by sentence, into Dutch. It ran somewhat as follows :—

Years ago, "years and years before any one can remember," there lived upon the island of Anki[1] an old man called Mansaäkri. He was old and ugly, and so covered with *cascado* as to gain for him his pseudonym—"the itching old man." All day long he climbed the sagueir trees and made palm-wine, and, dirtied from head to foot with the sap, returned at night to his solitary hut, for his presence was shunned by the rest of his tribe. By these precarious means he contrived to support himself, until he began to notice a gradual diminution in the yield of juice. His suspicions were aroused, but for a long time he was unable to discover the thief. At last, having watched all one night, he sees Samfari, the morning star, descend and drink his fill. He immediately seizes him and demands recompense, with the result that Samfari endows him with supernatural powers, although to outward appearance he remains unchanged. At the same time he presents him with a magic fruit, which, on being thrown at a virgin, will cause her to become pregnant. Mansaäkri releases the delinquent, and shortly afterwards, captivated with the charms of a maiden of the village, makes use of his present. In due time a child is born, who is endowed with the power of speech from the moment of his birth, and declaring Mansaäkri to be his father, receives the name of Konur or "the magician."[2] He is not believed, however, in spite of Mangundi or "he himself"—as the old man becomes afterwards named—performing many miraculous acts, and accordingly the latter resolves to leave Anki for ever. Going down

[1] Anki is one of the Isles des Traitres—a group lying to the north of Jobi Island in Geelvink Bay.

[2] Konur is the name by which the "medicine men" or shamauns are known among the Nufoor Papuans.

to the sea-shore he draws the outline of a prau upon the sand, and lo! —immediately one lies before him. In it he embarks, together with his wife and child, and after a short voyage lands upon Nufoor, which by a wave of the hand he changes from a barren rock into a fertile and forest-covered island. He then takes sixteen stakes and forms four squares, which in the morning have become four large villages filled with people. Here he lives happily enough, but his wife upbraids him unceasingly for his dirtiness and neglect, his personal appearance having remained unchanged. Her remonstrances at length succeed; he retires to the woods and makes a huge pyre on which he sacrifices himself. But instead of dying he springs Phœnix-like from the ashes, young and handsome, and the full power of the great Mangundi is at length acknowledged. This is the climax—the closing scene of the story. Mangundi lectures the people on their want of faith, and disappears. But all look for his return, and with it the coming of a Nufoor millennium, when labour shall cease and food become abundant, when sickness and death shall be no more, and earth become a Paradise.

Mr. Bink, who had been a carpenter by trade, had built himself a most comfortable and neatly-ordered house, and had planted an orchard in which many Malayan fruits were doing well. Small coral-paths, models of Dutch neatness, intersected the flower-garden, which was gay with an abundance of ferns and tropical plants. It was an ideal bungalow, but for all its brightness it must have been full enough of sad memories for the poor missionary and his wife—a kindly-looking woman whose pale, worn face spoke of the unhealthiness of the climate and the sufferings she had undergone. Of their five children but one survived, and that one—alas! for the poor mother—was sinking slowly but surely from an incurable malady. We were glad to learn that Mrs. Bink was soon to return to Europe, her husband and Mr. Van Balen having been ordered to Ron and Meoswaar, two islands at the head of Geelvink Bay, where a mission has been established since 1867.[1]

Some of the Dorei Bay natives are acquainted with the art of working in iron. They have learnt it from the Gebi islanders, but the knowledge remains confined to one or two families only. These smiths do not eat pig's flesh; not that they are Mohammedans, but purely from the superstitious belief that the transgression of this rule would affect the goodness of their work. Behind Monokwaré we one day came upon one of their forges. The bellows were composed of two upright bamboo tubes, about a yard high and five inches in diameter. In these worked two valved pistons tightly packed with cassowary feathers, and at the bottom of the cylinders two nozzles led Y-fashion

[1] There is reported to be a boiling spring on the island of Meoswaar, but as far as is known there are no evidences of recent volcanic action in the neighbourhood, or indeed in any part of North-west New Guinea.

into one, which, in order to prevent its being charred by the heat, was passed through a hollow stone. A little boy sat on a high bench, and grasping a piston rod in each hand, worked them alternately. The whole apparatus (which was of course of Malayan, not Papuan, origin) was almost identical with that I have seen employed in the interior of Africa, and I believe that it is also found in South America.

Pottery-making is a more widely-known art; and many of the women—for the wives and female slaves alone engage in this work—are tolerably clever at it. Vessels of excellent shape are often to be seen, but there is no great variety, and cooking-pots and bowls, all of which are unglazed, seem to be the chief articles made. The only other manufactures are plaited bags or baskets of grass fibre which are often stained with bright colours, and silver bangles, beaten out of Dutch dollars obtained from the Malay traders.

While we were in Dorei Bay a feast was held one night in one of the houses at Saraundibu. Among the Papuans singing and dancing are favourite amusements, and almost any event, joyful or sorrowful, important or trivial, serves as an excuse to indulge in them. The great feasts are for the completion of a *korowaar*, or for the successive steps in the carving of one of the great images of the idol-house—the *Mon* or ancestors. In these cases dancing and singing are kept up the whole night through for several successive days—the performers resting during the day and recommencing at sunset. We had no opportunity of seeing a feast of this nature, but Mr. Van Hasselt told us that a barn is often specially built on shore for the purpose. The men sit apart from the women, much decorated with coloured leaves and flowers of the scarlet hibiscus, which are tucked under their armlets and necklaces, and affixed to their mop-like hair by bamboo hair-pins. The masters of the ceremony are the *Mambris* or "champions"—men who have distinguished themselves in the ever-recurring intertribal wars. Sago, sagueir, tobacco, and gambier are provided, and the entertainment only ceases with the dawn. The singing is monotonous in the extreme, and the wooden drums are beaten without cessation. These, combined with the dancing, which is so violent as nearly to shake the house down, produce a terrific noise—all the more pleasing to a Papuan, as he

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knows it to be most effective in guarding him from the evil influence of the Manuen. In the lesser feasts there is no dancing, the entertainment being confined to singing, with the usual drum accompaniment.

Whatever may be the case in Eastern New Guinea, the woman is little more than the slave of the man among the Nufoor Papuans. She has to make his sago and cook his food, to draw the water, make pottery and fibre baskets, and often to submit to ill-usage, and the position of a wife is hardly bettered by the fact of her being under the authority of her husband's mother and sisters. Polygamy is common, but it is not usual for a man to have more than three or four wives. Should a woman prove childless she is sent away, and the husband marries again. Children are betrothed when very young, and when the contract is closed the parents of the future bridegroom pay those of the bride a part of the bargain agreed upon, for, as in many savage tribes, woman has a certain market-value. A very curious custom exists resembling one of the forms of *Hlonipa* among the Zulus, whereby the bride and her near relations must avoid the sight of the bridegroom and his people until the marriage. The betrothal is not binding, and if the man does not approve of his parents' choice he need not fulfil the contract. At a wedding at which Mr. Van Hasselt was present the bridegroom went to the bride's house, preceded by a crowd of women, each of whom bore a small present in her hand. Arriving at the room set apart for the ceremony, the young couple were placed back to back, the bystanders meanwhile taking up their position round them—the men on one side and the women on the other. The ceremony is usually performed by the oldest relation, and in this instance an old man undertook the office. Joining their right hands he took a mouthful of water and spurted it over them with the words, "May no enemy kill you, and no evil spirit affect you with sickness." Sago was then brought in and given first to the newly-married couple and then to the guests.

Even after the ceremony various customs have to be strictly observed. The bride and bridegroom must sit up all night. If sleep threatens them they are immediately aroused, for the belief of the people is that in remaining awake they will have a long and happy life. This continues for four nights. By day they are permitted to sleep, but the husband must return to his own house. Not until the fifth day may they meet each other alone, but even then only by night, and for four days more the husband must leave his wife's chamber before daybreak.[1]

At the marriage of widows there is little or no ceremony. The bride walks into the jungle with her husband, attended by a widow or

[1] For these and other notes on the customs of the Nufoor Papuans I am indebted to Mr. Van Hasselt, whose twenty years' residence in New Guinea has made him thoroughly acquainted with the people and their language.

a married woman, whose duty it is to break off twigs and pelt the bride with them—an operation which is supposed to drive away the ghost of the late husband. The widow must leave off wearing her old *tjidako*, or sarong, and hand it over to another widow, and with the giving of some small present to the attendant who has successfully laid the ghost the whole affair is ended.

Families with more than three or four children are not often seen, infanticide and the procuring of abortion being common. The use of ecbolics appears to be unknown, and force alone is resorted to. All deformed children are mercilessly killed.

On the death of her husband the wife is confined to her house for some time, for if the ghost of the deceased individual were to see her going about, he would immediately strike down people with sickness. Her hair must be cut close as a sign of mourning, and her *tjidako* must be of the plainest description. Should any brother of her late husband be alive, he is obliged to marry her; if not, she returns to her own family. The women are kept much secluded from strangers, and though the *Marchesa* was crowded with natives both at Dorei and in Jobi Island, none ever came on board. In their own houses they were rather less shy, but it was only among the Arfak people we met at Andai that they seemed to be on anything like an equal footing with the men. With the Nufooreans they are little better than slaves. Adultery is punishable by death, but the Papuan has a great eye to the main chance, and as a rule prefers to exact a fine, a portion of which has to be distributed among the heads of the different families in his village.

There are apparently no chiefs or kings among the natives of this part of New Guinea. Each village forms a small republic, which among a primitive people seems to be the most successful form of government. The old men and the heads of every family meet to discuss public matters, and adjudge the punishment of any delinquent. This almost always takes the shape of a fine. Murder, adultery, assault, theft, and so on are punished in this way, but their list of offences against the law is more extended than ours. The Papuans have a saying that "What the eye sees not and the ear hears not, that must no man say," and hence every one who speaks ill of or slanders his neighbour is liable to be fined. Fortunately there is not much chance of our forming our code upon the Papuan model, or the effect of such a law upon the pleasant social intercourse which enlivens our five o'clock tea-tables would be too terrible to contemplate.

In cases of dispute as to guilt, trial by ordeal is sometimes used among the Nufooreans. The suspected person has to dip his hand into boiling water, and, should no blisters result, is held to be innocent. If suspicion fall equally upon two people, they are taken each to a pile

of one of the sea-built houses, and made to duck simultaneously beneath the water. Whoever comes up first is the guilty person. It is not only in civilised communities that the thick-skinned and long-winded flourish as the green bay-tree!

Some few miles south of Dorei Bay is Andai, a small village nestling at the foot of the Arfak Mountains. No huts or houses of any kind are visible from the sea, and the view consists of range beyond range of dark jungle-clad mountains, which at the period of our visit were gloomy and rainy-looking in the extreme. At the village there are but

HUT NEAR ANDAI.

few inhabitants. They are a people quite distinct from those in Dorei Bay, and speak a different language. Their houses, too, are different. A short distance up the little river which joins the sea at this spot, the two or three of which the village is composed come in sight on the left bank. They are built on the land, but are supported by piles so closely placed together that it would be an affair of some difficulty to pass between them. These poles raise the house to a height of eighteen or twenty feet from the ground, and access to the building is afforded by a notched tree-trunk leant against the platform. Its ascent requires considerable caution, but the miserable, half-starved native dogs manage in some way to accomplish it. These huts differ from the turtle-backed dwellings of the Dorei Bay people in being quite

small, and in having a high-pitched roof, but the main features—the platform and the central alley-way—are the same.

We gazed at the rain-swept peaks which lay before us with no little interest, for the dense forests that clothed them were, we knew, the favoured haunts of the rare and magnificent birds of Paradise for which Mr. Wallace had searched in vain. There was the great velvet-black Epimachus, with its tail a yard in length; the Astrapia in its uniform of dark violet faced with golden-green and copper; and the orange-coloured Xanthomelus. There D'Albertis had shot his Drepanornis, with its two fan-like tufts, one flame-coloured, the other tipped with metallic violet, and there Beccari braved the climate to form the splendid collections in botany and zoology with which he returned to Europe. The summits of the mountains were less than ten miles from where we stood, yet although we might send our hunters on their slopes we could not explore them ourselves, as we had settled to visit both Jobi and the Aru Islands before leaving the Papuan region, and the time allotted to the *Marchesa's* cruise was fast approaching completion. We now regretted that we had delayed so long in Northern Borneo, but there was no help for it. The crew had only signed articles for a specified time and were already grumbling at its being exceeded. It was hardly to be wondered at, for the mangrove-swamps, incessant rain, and sweltering heat of New Guinea offered them few attractions, and many of them were suffering from the effects of the climate. In addition, their provisions had run short, and they had no biscuit remaining. We ourselves were much in the same condition, for our flour, which was in tins, had all gone bad, and we were reduced to rice and sago.

Between us we had been in most of the torrid regions of the earth's surface, but we agreed that, perhaps with the exception of the Persian Gulf in summer, the climate of New Guinea was the most trying of them all. Bathed in perspiration from morning till night and from night till morning, we woke utterly unrefreshed by sleep. The temperature, which in a dry climate would not have been unpleasant —for it was rarely above 90° Fahr.—was intolerable. Everything to which damp could cling became mouldy, and our boots, if put on one side for a day or two, grew a crop of mildew nearly half an inch in thickness. We were covered from head to foot with prickly heat, and those who had been unfortunate enough to suffer from "liver" in other hot climates began to feel the sharp pains in the side and shortness of breath which speak so plainly and unpleasantly of an enlargement of that organ. Both mental and physical exertion is under these circumstances distasteful enough, but it is by active exercise alone that one is able to keep in health, and we took care to give ourselves plenty of it. The mornings were generally devoted to collecting in the jungle, the afternoons to labelling specimens, surveying, and small jobs, the

evenings to skinning and journal-writing. In preserving our specimens we had need of all the patience that prickly heat and other small worries had left us. All the bird-skins had to be dried in the sun or by artificial heat and soldered up in tin boxes. The yacht swarmed with cockroaches and minute ants, from which we had the greatest difficulty in keeping them. At meals there were seldom less than a dozen or so of the former on the table at any given moment, but they gave us less trouble than the ants. These were not often visible, but a dead bird or butterfly left for five minutes in any part of the ship would be covered by them in hundreds, and nothing was safe from their ravages. For many weeks, by night as well as by day, a constant stream of these little creatures ascended and descended the foremast, climbing to the very summit of the foretopmast. Many of our crew suffered from malarial fever, which, although not actually serious, was in two cases tolerably severe. It was chiefly of a remittent type with a concurrent affection of the liver, and left the patient weak and unfit for work for a considerable time. We ourselves, although more exposed from constant work in the jungle, were less affected by it, mainly owing to the greater precautions we took. It is almost impossible to get an English sailor—especially if it be his first experience of the tropics—to take even ordinary care of himself. One or more of our hunters was always on the sick list, either from deep ulcers in the feet and legs, caused by wounds and scratches got while shooting in the forest, or else from fever, but with them the latter was of a mild type. The ulcers were a very different affair, owing to the obstinacy with which they refused to heal, and one of our men was incapacitated by them for the greater part of the time that he was with us.

My reader will, I hope, pardon this digression. It is not "the hairbreadth 'scapes," "the moving accidents by flood and field"—of which, by the way, I have few or none to recount—but rather, as in civilisation, the lesser worries of existence that are the drawbacks of a traveller's life. It is the mosquitos, illness, bad food, and the like, of which he has the most unpleasant recollections, and as one or other of these formed a part of our daily experiences in these regions, they ought not, perhaps, to go unrecorded.

A short distance from the mouth of the river at Andai we came upon the hut of a Dutch missionary, Mr. Woelders, who had been established there for some little time. His predecessor had been Mr. Jens, whose wife, a victim to the climate, lies buried in the little garden adjoining. Mr. Woelders greeted us with effusion in his native tongue,—the only European language with which he was acquainted, —and we had little difficulty in understanding how welcome must be the sight of a white face in such a remote corner of the earth. The mission we learnt, had not been attended with much success, but to

have got the natives accustomed to having a European living among them was, no doubt, a point gained. Mr. Woelders had a small printing-press, and occupied himself in printing a little book of hymns in the Nufoor language for the use of the mission at Mansinam.

NATIVE OF HATAM.

The heat was excessive, and the hot steam which rose from a little tract of marshy forest surrounding the house was unpleasantly suggestive of malaria. We were glad to rest in the house and chat with our host. He took, we discovered, a (pecuniary) interest in birds, and told us that he had two native hunters collecting for him at Hatam, a village a few miles off on the slopes of the mountains, where Beccari and D'Albertis had gathered their rich harvests in botany and ornithology. They were expected to return at any moment, and an hour or two later the distant firing of guns announced their approach. They were accompanied by a number of the Hatam people who had assisted them, and were come to claim payment in "trade" from Mr. Woelders,—old and young men, women with babies strapped upon their backs, girls, and sundry children of both sexes; indeed, when hunting, the master of the house appears to be attended *en masse* by his whole family. The men were sinewy fellows of medium height, and by no means attractive-looking, but they did not seem to differ much from some of the Nufoor people. They were all armed with bows and arrows, and long spears tipped with cassowary or human bone or hardened bamboo, and ornamented with a tuft of cassowary feathers. All the men wore the nose-bar and the usual Papuan ornaments I have already described, but their hair was dressed in a manner

we had not seen before either at Dorei or in the islands. Instead of the usual mop it was either formed into three great tufts or gathered circumferentially into about a dozen bundles, which, almost exactly resembling the tassels of a window-blind, hung down all round the head, one alone projecting horn-like from the crown. One individual wore a frontlet composed of a double row of dog's teeth, and several had the long tail-feathers of the Epimachus stuck in their frizzly hair. In the women the dress was reduced to a minimum, and very few ornaments were worn. One girl had distinct pretensions to good looks, but she formed a marked exception to the others, whose faces and figures were equally unattractive. A mainly vegetable diet interferes considerably with gracefulness of shape.

PAPUAN GIRL, HATAM.

The albino girl mentioned by D'Albertis in his narrative was to have been of the party, but an attack of fever had kept her at Hatam, and greatly to our regret we did not see her. We proceeded, however, to make use of the excellent types at hand, and spent the greater part of the day in photographing, an operation which the Arfak men did not at first seem inclined to submit to. It required unlimited patience and the use of sundry interpreters to explain matters, our wishes and directions having to filter through the Dutch, Nufoor, and Arfak languages before reaching their destination, but we at length succeeded in obtaining some tolerably satisfactory negatives. It was hard enough to get the people to sit at all, and harder still to make them understand that they were to keep motionless.

We ourselves, as I have mentioned, had been obliged to give up all idea of shooting in this locality, but our first care on arrival at Andai had been to send off three of our hunters with a guide, and we were of course anxious to inspect the collection which had just arrived for Mr. Woelders. It contained some beautiful specimens of the rarer birds of Paradise, among them Epimachus, D'Albertis's Drepanornis, Astrapia, and the curious Wattled Bird of Paradise (*Paradigalla carunculata*). The latter, whose plumage is of an entire jet-black, has the appearance of being faintly powdered over with a bronze-violet dust, and is provided with a trilobate caruncle on either side of the face, the upper, middle, and lower parts of which are coloured orange, leaf-green, and scarlet

respectively. The collection was rich in parrots of various species, among which were several specimens of a brilliant Charmosyna (*C. papuensis*)

HEAD OF GREAT BLACK COCKATOO. (*Microglossus aterrimus.*) Natural size.

and the wonderfully minute *Nasiterna bruijni*—pygmy of its tribe—less than four inches in extreme length, and not so large as the bill of the great Microglossus! There were other birds of interest and rarity,

and as we were anxious to obtain some of them, we broached the subject to Mr. Woelders. He informed us that he would part with them "for the sake of the good cause," and asked us to make an estimate of their value, which we accordingly did on—as we considered—the most liberal terms. To our astonishment our offer was refused, and a sum demanded which was more than double what the collection would have been worth in Europe. As politely as we were able we intimated that the state of our purses did not admit of the expenditure of such an amount—even for the "good cause," and the matter dropped.

BRUIJN'S PYGMY PARROT. (*Nasiterna bruijni.*) Natural size.

At a later period, however, as one of us was particularly anxious for certain of the specimens, we raised our bid slightly, but with no effect, and no more was said until our departure. The anchor was a-weigh and the yacht just leaving when a canoe was made out paddling hard after us. We waited, and a letter was handed up. "*Bij zoo veel vriendschap en liefde moet ik met liefde betalen*"—and we might have the birds! In this affair it must be confessed that our faith in missionaries sustained a somewhat severe shock.

Both the Dorei Bay and Andai people inter their dead, and have not the custom of keeping their ancestors dried and smoked in their houses, as is in vogue among some Papuan tribes. Here the graves are piled with stones in order to keep off the dogs and wild pigs, or surrounded

with a deep trench for the same purpose.[1] Mr. Jens informed us that at the death of any adult, hired mourners, who are generally widows, are employed. These keep up an incessant song of lamentation, and recount the deeds and virtues of the dead man. The body is doubled up in a sitting posture for burial, and bound round with mats, and with it are interred bows and arrows, or cooking-pots and other household utensils, according to the sex of the deceased person, for the Papuans believe in a future life, and hold that it is not much different from the present. Its situation is beneath the earth; it is a happier world than ours, and in it food is abundant and labour reduced to a minimum. The ghosts of the dead, however, do not confine themselves to this abode, but have the power of returning to earth to rest in the *korowaar*, or haunt their living relatives and friends. Persons who have attended a funeral must bathe immediately afterwards, or the ghost of the deceased would kill them. The spirits of the dead are everywhere, and no better field for the researches of the Psychical Society could well be imagined.

On our way back to Dorei Bay we took the height of what we considered to be the loftiest peak of the Arfak range, steaming four miles for our base line. The observations gave us 9046 feet, but—though unlikely—it is possible that there may be a still higher mountain lying beyond. This peak lies 16·7 miles S.W. by S. of Mansinam. From November till April—the period of the west monsoon, and the season of the heaviest rains—the Arfak range is said by the missionaries to be seldom clear.

Reaching Mansinam we found a bullock ready for us, a welcome change in our monotonous diet. We had wished to obtain another live one to take on board, but it had been found impossible to catch it. Mr. Van Hasselt had some time back permitted his cattle to roam at large on Manaswari Island, and they had in consequence become quite wild and almost useless to him. The same evening we weighed anchor and proceeded for Jobi, a large island over a hundred miles in length, which stretches half across the mouth of Geelvink Bay. We had three additions to our ship's company; Mr. Jens, whose knowledge of the Nufoor language was most useful to us, an old Papuan named Kawari, and his son. Kawari, who spoke a few words of Malay, and from his knowledge of the coast and out-lying reefs of Jobi Island was taken by us as a sort of pilot, was a character in his way. He was evidently immensely impressed with the importance of his position and the size and beauty of the "big fire-ship," of which he supposed himself to be in entire charge, and his appearance on the bridge, clad chiefly in amulets, was a source of much amusement to the crew. On leaving Dorei Bay the night was very dark, and wishing to test his knowledge,

[1] We learnt from Mr. Van Hasselt that staked pitfalls are used by the Nufoor people to catch wild pigs and cassowaries.

we asked him in which direction Jobi lay. What followed was somewhat amusing. Mr. Jens, happening to come up at the time, also had a guess, and differed some three or four points from the old man. We thought no more about the matter, but shortly afterwards discovered Kawari in a state of great perturbation, of the cause of which we were not left long in ignorance. Taking us on one side, he implored us not to believe Mr. Jens—"*Tuan pandita tida tau, sahaya tau,*" he kept repeating—"the missionary doesn't know; *I* know," patting his fat stomach. As gravely as we were able we assured him that, though we had had evidence of missionary infallibility on land, we thought it possible that they might occasionally be deceived in nautical matters, and with the assurance of our entire trust in his navigation the old fellow returned comforted to his post.

CHAPTER XXIII.

NEW GUINEA (*continued*).

To ensure the safety of the ship on her voyage old Kawari had looked out the necessary amulet from the bunch that hung on his chest, and placed it at its post of action between his shoulder-blades. We were therefore protected from the malevolent designs of the Faknik—evil spirits who are the cause of storms and adverse winds, and whose dwellings are the caves by the seashore. They are ever on the alert to drown the mariner, and to cause him—as does the Manuen on land—every kind of misfortune and distress. A good amulet, we were glad to learn, is most efficacious against their spell, and we were further protected by a very liberal supply of tobacco which, if thrown into the sea as an offering, is often, Kawari told us, of the greatest use in the event of an amulet proving inefficient. The old pilot's charm, however, was by one of the best makers in Dorei, and at the end of our voyage the tobacco was intact.

The village of Ansus lies on the south shore of Jobi Island, at the head of a deep channel formed by various islands and coral-reefs. The approach is a dangerous one, and without Kawari we should most probably have got into difficulties, for, contrary to the usual rule in these clear waters, there are many shoals and rocks of which the best look-out gives no warning.

Ascending the channel for a distance of three or four miles, a sudden turn brought us in view of the village. It was of large size, comprising no less than forty-seven of the enormous houses with which we had become familiar in Dorei Bay. Here, however, they were true lake-dwellings, having no bridges to connect them with the shore, the position of which was a matter of uncertainty from the dense growth of dreary mangroves around the creek. Although built in close proximity to one another, each house was completely isolated, and access was only possible by means of one of the numerous dug-outs tied up in front of the platforms. Our arrival created no little excitement, and

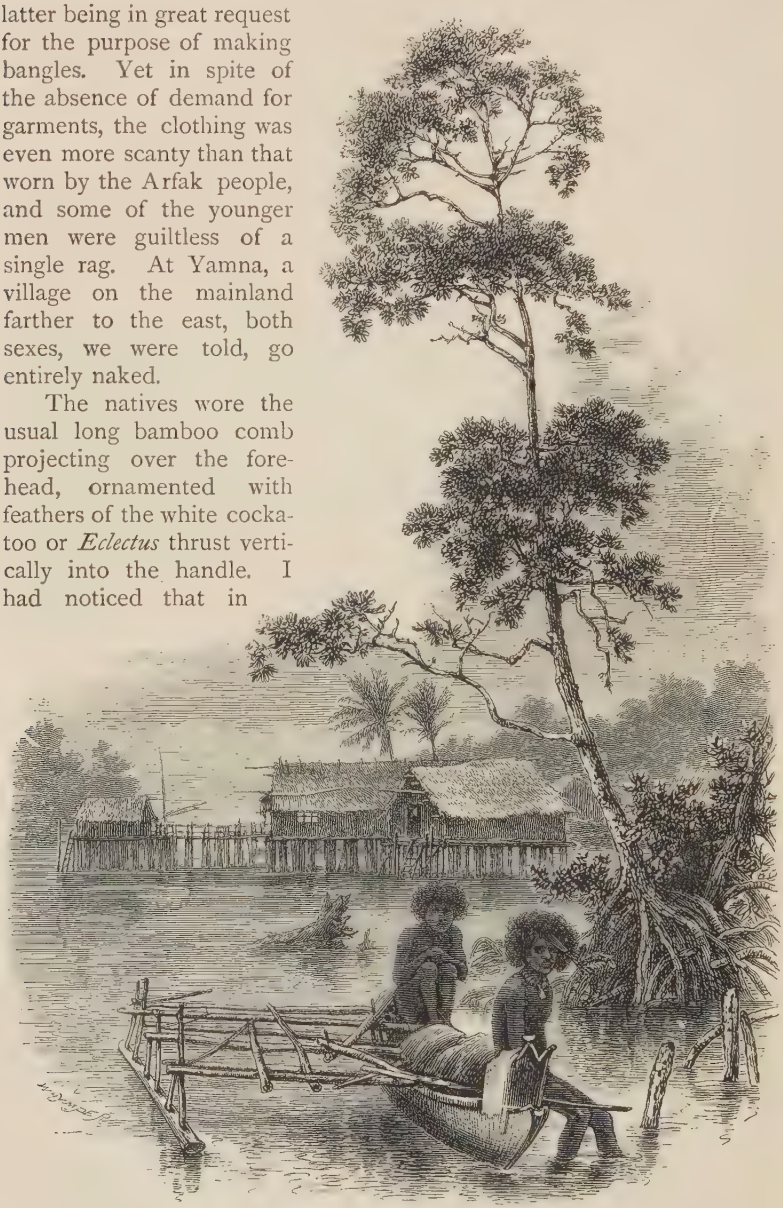
the anchor was hardly down ere we were completely surrounded with canoes, the numbers of which were almost every moment reinforced by fresh arrivals. All the natives were armed with bows and arrows, and with long spears tipped, as among the Nufooreans, with bone. These people a few years ago bore the worst of characters, and although they have much improved, are even now by no means entirely to be trusted. Kawari was in a comic state of alarm during our stay lest we should come to some harm while out shooting, but on our first acquaintance the natives appeared good-humoured enough, and were soon perched

CANOE, ANSUS HARBOUR.

in numbers on the bulwarks, shouting and yelling at the top of their voices and making such a noise as can only be produced by Papuans. In circumstances such as these "Dick" was of the greatest use to us, for he alone was able to clear our decks. His size and blackness, his gleaming white teeth, and, above all, his deep bark,—for the native dogs apparently do not bark,—effectually frightened our invaders, and they scattered like a flock of sheep at his approach, tumbling overboard or running up the rigging in their frantic endeavours to escape. No women were to be seen for the first day or two of our visit, and little or nothing in the way of barter was brought off. Our stores of cloth and Turkey red did not tempt them in the least, and almost the only things we found marketable were Chinese buttons and silver dollars—the

latter being in great request for the purpose of making bangles. Yet in spite of the absence of demand for garments, the clothing was even more scanty than that worn by the Arfak people, and some of the younger men were guiltless of a single rag. At Yamna, a village on the mainland farther to the east, both sexes, we were told, go entirely naked.

The natives wore the usual long bamboo comb projecting over the forehead, ornamented with feathers of the white cockatoo or *Eclectus* thrust vertically into the handle. I had noticed that in



WATERING-PLACE NEAR ANSUS.

some cases the most conspicuous feather was not an entire shaft, but built up, as it were, of two or more different pieces, and on inquiring the reason one morning from a formidable-looking warrior who was perched upon our bulwarks, I learnt that each piece signified that the owner had disposed of an enemy. The coast people, it appears, are always at war with the interior tribes, who from time to time come down from the mountains and make raids, in which the women and children are carried off as slaves. One of these descents had taken place only a short time before, and some of the relatives of my informant had been killed. Reprisals, however, were being planned, and from the way in which he spoke of them, it was evident that he looked forward with no little pleasure to the chance of elongating his feather.

The Jobi men are much disfigured by the moxa tattooing to which I have alluded on a former page, and seem to be even fonder of decora-

COMB OF ANSUS MAN.

tion than the people of Dorei Bay. Necklaces of the common cowrie, with a single pendant of the snowy *Ovulum ovum* on the chest, are worn by every one, and the bracelets, armlets, and shoulder-straps are extremely well worked. The few women that we saw were very shy, and could not be induced to come on board, or to remain when we entered the houses. They wore nothing but a piece of native-worked cloth resembling the *tappa* of the Polynesians. Several were tattooed with faint blue lines above and on the breasts, to form a diagonal "diamond-pane" pattern, and all wore mats of a most peculiar cowl-like shape over the head and shoulders. In one or two instances we also saw men with them. Mr. Jens told us that, as far as he could learn, these were worn as mourning for the death of a relative. A very similar dress exists among the Dorei Bay people, but it is only seen on women who have been recently confined, the idea being that the sun must not shine upon their heads, or it will cause the death of some near relation. After a certain period has elapsed a feast is given and the mat discarded.

Shortly after our arrival at Ansus we had made friends with a pleasant-faced, nose-barred savage, who, by the size and finish of his mop and the character of his ornaments, was evidently not a little of a dandy. He was of particularly fine physique, and the ease and grace of his carriage rendered him conspicuous among the others, for the Papuans, unlike most of the African negroes, are not remarkable in this respect. The hunting of the Birds of Paradise is but little practised in Jobi, but Paperipi, as he was named, appeared to be the greatest authority on the subject, and after a long discussion, it was arranged that he should take all our available hunters, headed by Tahirun, to the best ground he knew of. This lay rather more than a day's journey to the E.N.E., and we accordingly fitted them out with provisions and ammunition for a week's absence, and sent them away without loss of

CANOE, ANSUS; WITH WOMAN WEARING MOURNING MAT.

time. They were accompanied by a small escort of Ansus men, in case of a meeting with any of the hill people, but we ourselves remained behind as we were desirous of getting a sketch survey of the harbour and its approaches, while there was at the same time abundant material to employ us close at hand without leaving the ship for any length of time, which we were not particularly anxious to do.

We had intended to make our first excursion to Kaiari, a small island close to our anchorage, but the natives rather eagerly dissuaded us from doing so, saying that it was staked in every direction with sharp-pointed bamboos in case of raids by the Alfuros. We did not believe the story at the time, and afterwards discovered that they buried, or rather exposed, their dead upon the island, which was possibly the cause of their unwillingness to let us shoot there. Our first search was for water, and we were rewarded by the discovery of a clear stream on the mainland not far from the mouth of the channel, in close proximity to which sago-washing had been carried on in exactly

the same manner as we had remarked in Batchian.[1] The forest was tolerably open, and here for the first time we saw the Lesser Bird of Paradise (*P. minor*) streaming through the trees like a golden comet. Its restless habits render it most difficult to shoot. Like the closely allied and well-known *Paradisea apoda* of the Aru Islands, it has regular "play trees," where in the breeding-season the males assemble and display their exquisite plumage before an admiring circle of females; but neither here nor in Waigiou, where, according to the natives, the Red Bird of Paradise has the same habits, were we fortunate enough to witness this extraordinary sight. We also came across the little King-bird, which Mr. Wallace has described as "one of the most perfectly lovely of the many lovely productions of Nature," "a gem of the first water," and indeed in writing of the happily-named birds of Paradise—perhaps the most exquisitely beautiful of all living creatures—each of which seems to surpass the last in the glory of its colouring and the marvellous eccentricity of its plumage, it is difficult to find words to express the sense of admiration they arouse when seen for the first time in their native land. As the naturalist tenderly and lovingly handles some new and long-coveted species of which he has hitherto only seen some deformed and wretched caricature on the shelves of a museum, he realises the inadequacy of superlatives. He can only feel that the little creature that lies before him is perfect and without fault; so perfect indeed that, in spite of the rarity of his prize, he cannot help wishing that he could give it back its life.

The King-bird of Paradise (*Cicinnurus regius*), of which we obtained numerous specimens during the *Marchesa's* cruise in New Guinea waters, is the most generally distributed of all the Paradiseidæ. As is always the case in the birds of this family, the females and young males are alike, and of the most sober colouring,—mouse-brown, with faint barring on the breast and abdomen [2]—contrasting strongly with the brilliant plumage of the adult male, in whom the entire upper surface is of a rich, glossy red shading into orange on the head. An emerald green band crosses the breast, below which the plumage is creamy white. But the chief beauty of the bird lies, as in many of its kind, in the strange development of the central tail-feathers and the tuft of sub-alar plumes. The former are prolonged for five or six inches as gracefully-curved wires of extreme fineness, and terminate in brilliant

[1] Among the Geelvink Bay Papuans sago is eaten by means of two rough chopsticks very much like those used by the Chinese.

[2] This type of coloration in the female is adhered to, with more or less variation, in all the birds of Paradise, with the exception of *Paradisea* and *Paradigalla*, a curious fact when the great dissimilarity between the males is taken into consideration. There is little enough resemblance between the Twelve-wired Bird of Paradise and the New Guinea Rifle-bird (*Craspedophora magnifica*) in the male, but the females are so much alike that by the plumage alone it is extremely difficult to distinguish them.

metallic green discs about the size of a sixpence. Concealed beneath the wing, but capable of being expanded into fans of wonderfully regular shape at will, are two greyish tufts of feathers, tipped in the same way with glittering emerald.

The gradual development of these singular and strikingly beautiful tail-feathers we were able to trace in the admirable series of skins we obtained. At first brown and of the same length as the others, they gradually acquire a red tinge, and, when an inch or two longer, become eroded on the inner web, and somewhat curved, so that the feather is sickle-shaped. This curvature becomes after a time more pronounced, ultimately assuming the shape of the perfect feather, though its colour still remains unchanged. The shaft then becomes completely denuded of feather, and the terminal disc acquires the brilliant metallic green colouring of the perfect plume. This process occurs only during the first change of plumage from the immature state—a change which is produced by the gradual assumption of colour in previously existing feathers, and not by moult. Afterwards, at the yearly moult, the prolonged tail-feathers make their appearance in very peculiar hook-shaped feather-cases, on the rupture of which the plume discloses itself in its complete state.

In the jungle near the village there were few striking flowers, or at least few that we had not met with elsewhere. A Nepenthes, which grew in some abundance, with dwarfed and ungracefully shaped pitchers, was, however, new to us, as was also a Cypripedium, of which we found a single specimen only, growing at the bottom of a large tree. This latter orchid was very handsome both as regards shape and colouring, the flower-stalk bearing three or four blossoms with pendulous ribbon-shaped petals, twisted into a graceful spiral, and tinged with purple. The dorsal sepal was marked with alternate stripes of dark brown and yellow, while the lip was of a paler shade of the same colour, less distinctly striated.[1]

Numbers of canoes surrounded the *Marchesa* from morning till night during our visit. Such a thing as a built boat is unknown, and all are "dug-outs," made by burning out the trunks of trees with charcoal. This is an operation over which much time and labour is spent, and after the finishing touches have been put to the craft, they are filled with water and kept sunk for a time, in order to counteract the tendency to split. They are outrigged almost without exception on one side only, and though the outriggers are but clumsily constructed as compared with those of the Dorei Bay people, the Ansus men are

[1] This orchid, which I have since learnt to be a species new to science, is allied to *Cypripedium philippinense* (Reichb.), figured in the "Bot. Mag." pl. 5508, but the twisted petals are very much shorter, being only twice the length of the lip, and the colouring of the sepal of a far brighter yellow. I have named it *Cypripedium gardineri* after my friend Mr. Walter Gardiner of Clare College, Cambridge. The genus Cypripedium, I believe, has not been previously recorded from New Guinea.

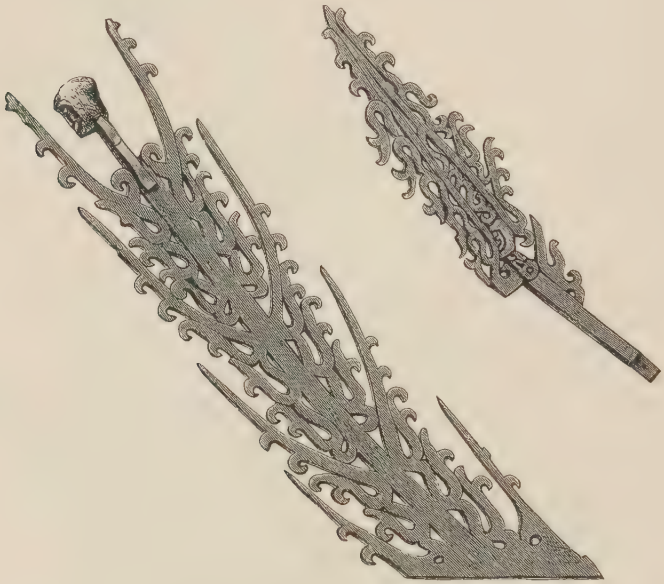
much more given to adorning their boats than their western neighbours. Bits of red and white rag, coloured leaves or flowers, and various shells are constantly used for this purpose, and the bows of the craft are sometimes ornamented with fretwork figure-heads, which, with the

CYPRIPEDIUM GARDINERI.

limited tools the natives have at command, must have cost infinite labour to produce. Many of these are of designs that would be really creditable to a pupil in a school of art, and they are especially remarkable from the fact that no two of them appear to be alike. The decoration of the praus is apparently most frequent on the occasion of

a feast, when the natives themselves appear adorned with the red flowers of the hibiscus, or with yellow leaves tucked beneath their armlets, which have by no means so innocent a meaning as might be imagined.[1]

Wandering one day in the forest at the back of the village, we came upon a skull wedged in the branch of a tree, with a well-worn path leading up to it. What it was, whether the spoil of some encounter with the Alfuros or not, we did not learn, but on another



FRETWORK FIGURE-HEADS, JOBI ISLAND.

occasion we found a small box containing the skeleton of a young child in a like situation. It was an offering to Narvoii—a spirit in whom the Jobi islanders believe in common with the Dorei people. Narvoii is no malicious demon like the Manuen, but a good spirit, whose abode is in the mists and the tops of giant forest-trees, where he lives in company with a female spirit named Ingira. He is a little mannikin with long white hair, old and decrepit, who wanders ceaselessly at night in the forest and haunts the outskirts of the villages, ever on the watch for children, whom he kills because he loves them and likes to have them always with him. All young children who die, and even those who are killed by their mothers at birth, are offered to Narvoii in the

[1] Quot hostium virgines per vim stupraverunt, tot folia aurea gerere illis mos est.

manner I have described, in the hope that he will be thus propitiated, and refrain from killing others.

In Jobi, as in other parts of New Guinea, there is no lack of malaria, and though the sea-dwellings and consequent canoe-life of the people is no doubt a great safeguard against it, they are by no means exempt from its effects. Of other diseases we saw little or nothing, with the single exception of a skin affection which, though not uncommon in North-west New Guinea and, I believe, in other parts of the island and Polynesia also, appeared to be very frequent at Ansus; so frequent indeed that probably not less than fifteen or twenty per cent of the population were affected. It is a form of tropic ringworm, which, spreading from various centres, covers the skin with circles of extraordinary accuracy of outline. In time these meet, and ultimately the greater part, or even the whole of the body, becomes covered with these marks, ring forming within ring much as the wavelets caused by the splash of a pebble in a pool. Individuals suffering from this disorder, which would seem to be of a most obstinate character, if not actually incurable, are conspicuous at some little distance, owing to the whitish and scaly appearance presented by the skin. The patterns formed by this unpleasant but curious disease, which is commonly known as *Cascado*, are sometimes almost ornamental, and when seen at a little distance give the effect of tattooing.

On the day after our arrival one of us had been greeted by a most horrible smell while passing a house in the village, but it was not until some little time afterwards—when it was of a yet more unbearable nature—that we learnt its origin. They were drying the corpse of a man over a fire—an operation which took nine days! In a climate like that of New Guinea the effect of these funeral ceremonies is better imagined than described. The custom is apparently in vogue among several of the Papuan tribes, and in some cases, when the body is sufficiently dried and smoked, it is preserved in the house. The Ansus people have another method of disposing of it, and do not furnish their dwellings with their deceased relatives. On the tenth day the body in question was rowed across to Kaiari Island and placed upon a platform of sticks among the mangroves, where we had no difficulty in recognising its presence within a considerable radius for the remainder of our visit.[1] A pole with a piece of rag fluttering at its extremity indicated the mouth of the creek where the bodies were placed, and conches, shell necklaces, and other articles were hung up in the branches hard by.

Korowaar, or images of the deceased, are constructed as at Dorei

[1] Mr. Van Hasselt afterwards told us that some of the Arfak tribes also dry the bodies of their dead in the above manner, and that it is the custom that the substance which drips from the corpse in the process should be tasted by the widow, under pain of death!

Bay, some of them of most ludicrous appearance. One that I was fortunate enough to obtain—whose likeness I here present to my reader—was especially so. The mop was imitated by little tufts of cassowary feathers, and the individual was represented sitting with his chin resting on his hands, and a comic air of determination in his wooden features. Images of this nature must have existed nearly three hundred years ago, for Purchas makes mention of them. "There is heere," he says, "a Bird as bigge as a Crane, hee flyeth not, nor hath any Winges wherewith to flie, he runneth on the ground like a Deere: of their small feathers they doe make haire for their Idols."[1]

KOROWAAR.

In spite of the cemetery and the recent highly-flavoured addition to it, we did not hesitate to land on Kaiari to take some observations. At its western end we found a pole bearing the Dutch arms. At the north-east point a small off-lying shelf of rocks not visible from the village gave us an excellent post to connect various bearings we had taken for our rough survey of the bay and its islands. Having finished this, and wishing to estimate the distance across the bay to the south point of the island, I remained behind to fire guns while my companions rowed over to the other side, a mile and a half away, to time the reports,—a plan of judging distance which with care gives sufficient accuracy for all practical purposes. The operation is usually unexciting enough, but in this instance it was attended with results I had not foreseen. I had hardly finished my series of half a dozen discharges before I heard the splash of paddles and a large canoe shot round the corner, filled with an excited, jabbering crowd of natives with their bows drawn at me in what seemed to me an unpleasant and quite unnecessary manner. They had barely made their appearance when—*splash*, *splash*—and a second came into view; then another and another, until I was surrounded by quite a little fleet, and an amount of shouting and jabbering that even from a Papuan's point of view must have seemed excessive. Old Kawari's caution and a certain sentence in Mr. Wallace's "Malay Archipelago"—"Jobi is a very dangerous place, and people are often attacked and murdered while on shore"—occurred to my mind, and at the moment I wished that my companions were a little nearer. It would have been difficult to resort to the

[1] "Purchas hys Pilgrimes," vol. ii. p. 1682.

proverbial remedy of writing to the *Times*, so I waved my hand amicably and opened a conversation in English on the subject of the weather. The scene would have been irresistibly ludicrous to a spectator, but I should probably have enjoyed it more myself had I been a disinterested party, and I was not sorry to see our boat approaching. The natives saw it too, and quietly dispersed. Most probably the frequent reports of my gun had led them to the conclusion that our party had come into collision with some of their own people, and they were reassured on learning that such was not the case. The

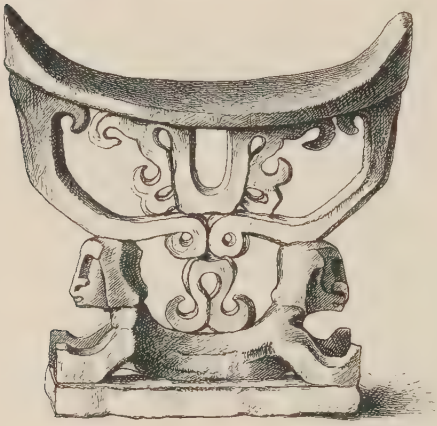
NATIVE OF JOBI.

unsophisticated Papuan, however, is such an excitable individual that good temper and caution are all-essential in dealing with him.[1]

Tahirun and the other hunters returned successful from their expedition at the end of five days. Of the beautiful golden-plumed *Paradisea minor* they had obtained forty-two, and of the King-bird nine skins; the former, together with those we had shot in the immediate neighbourhood of Ansus, completing a perfect series in different stages of plumage. The abundance of this bird in Jobi was remarkable, but it is a singular fact that there was not a single female in our collection. The segregation of the males at certain seasons of the year partially explains it, but there is, I think, no doubt that in this species, and indeed among the Paradiseidæ generally, a considerable preponderance

[1] The murder of the captain and four of the crew of the trader *Koredo* at Biak, in July 1886, has since proved that the natives of this group are by no means entirely to be trusted.

in numbers in favour of the male sex exists. Among the other birds the most noticeable were three skins of a species of Crowned Pigeon peculiar to the island, not greatly differing from the one we had already obtained, but conspicuous by the star-like white tipping of the crest. Of this bird (*Goura victoriæ*) we also obtained two living specimens, but, unlike its congener, it did not seem to be at all abundant.



PAPUAN HEAD-REST.

The payment of the Ansus escort was an affair of some difficulty, for, like most natives, however much they may have desired any given object a few moments before, possession failed to show them its virtue, and they immediately wanted to exchange it for something else. We eventually settled the matter by giving them a *sarong* and a knife apiece, besides some smaller presents, while Paperipi's heart was gladdened with a bar of iron and some cloth. He brought us some excellently-carved wooden pillows or head-rests for exchange, all of different design but of very similar plan, representing two conventional human figures lying on their stomachs and supporting the curved bar on which the neck is intended to rest. It is curious that such an exceedingly uncomfortable article should be in use among such different and widely separated peoples as it is. The Zulus and other South African tribes use it, and even the Japanese have not discovered anything better. In Egypt it is probably contemporaneous with the construction of the Pyramids!

We returned to Dorei Bay on the 13th, merely waiting long enough to pick up our ornithological spoil from the Arfak district, and to get our hunters on board, and our time was for some days afterwards fully occupied in the labelling and arrangement of our collections.

Among them we were fortunate enough to find a prize,—the rare and extraordinary Echidna that has quite recently been discovered in Northern New Guinea (*Proechidna bruijni*). This curious animal in outward appearance resembles the Hedgehogs in its spine-covered body and the Ant-eaters in its long and tapering snout. The latter is incapable of being opened, and the mouth consists of a small hole at the apex through which the long and vermiform-tongue is protruded. The spines are short and stout, but of needle-like sharpness, and spring

BRUIJN'S ECHIDNA. (*Proechidna bruijni.*)

Page 412.

from a thick coat of dark brown fur. The fore foot is furnished with three broad and nail-shaped claws, while those of the hinder limb are long, sickle-like, and very sharp. Worked by the powerful muscles with which the creature is provided, these are admirably adapted for digging. The tail is rudimentary. Bruijn's Echidna, which is over two feet in length, and is thus considerably larger than its Australian representative, is said by the natives to live in burrows in rocky ground.

On the 15th we again arrived at Momos in Waigiou. Our friend the Rajah came off almost before we had let go our anchor, followed directly afterwards by the two hunters we had left behind to collect for us. They had not obtained the Rhipidornis, as we had hoped, but we were pleased to find seven specimens of the Red Bird of Paradise in full plumage among the skins.

Leaving Momos early on the morning of the 16th, we steered south for Samatí, a village at the north-east point of Salwatti, and, the eastern limit of the Batanta reef being a matter of uncertainty, took our old course over the shoal close to the latter island. The approaches to Samatí are difficult, and but for the instructions we had obtained from Captain Hakkers we might easily have got into trouble. Shoal water extends for a considerable distance off shore, and the deep draught of the *Marchesa* obliged us to anchor fully three miles from the village. Presently a large prau with the usual complement of flags and tom-toms announced the arrival of the Rajah—the second of the potentates of the Rajah Ampat. He was accompanied by the son of the Sultan of Tidor, our acquaintance of Napriboi, who was about to start on his return voyage on the following day.

The Rajah of Samatí was a rather pleasing-looking Malay, or at least would have been so but for the loss of the greater portion of the right side of his nose. He is fond of telling the story of his disfigurement. The Papuans of Saonek in Waigiou had stolen a brass coat-of-arms—the insignia placed by the Dutch on most of the islands claimed by them in this part of the world—and the Rajah visited them in his prau to demand its restitution. It was refused, and the Papuans suddenly attacked them. The Rajah, unarmed and unsupported, for his men were all engaged in defending themselves, had a desperate struggle with a man in attempting to regain the prau. To prevent him using his spear the Rajah caught him by the wrists, and the native, foiled in his attempt, fastened on to his antagonist's nose with his teeth. Both held on for their lives, but the Rajah getting free first—at the expense of the portion of the aforesaid organ—kept the less fortunate Papuan beneath the water till he finished him.

We took advantage of the Rajah's prau to land, and the tom-toms were beaten more energetically than ever in our honour. These boats

are wonderfully built, no nails of any kind being used in their construction. Each plank is furnished with studs at regular intervals, left in cutting it out of the tree. A hole is bored through these, and cross thwarts and strong knees having been fitted, the whole is tied together with coir rope. The result is as strong a craft as can well be constructed, albeit somewhat clumsy.

Samatí is unlike the ordinary type of New Guinea village. Marks of Malay influence were visible in the shape of a small herd of cattle pasturing near the shore, and many of the houses were built on land. The Rajah's was among the number, and on the verandah four chairs, a paraffin lamp, and a table covered with a red cloth almost brought us within touch of civilisation. Cigars and *rokos* were brought, and on inquiring about our hunters we learnt that the Papuans we had asked the Rajah to employ had succeeded in catching a live specimen of the Twelve-wired Bird of Paradise (*Seleucides*), and were still away in the mountains in search of others. The bird, a male in full plumage and already tolerably tame, was brought in in its bamboo cage, and although we had previously seen this species alive in the aviary of the Resident of Ternate, we could hardly keep our eyes off our new acquisition, so striking was its beauty.

The method employed by the natives in catching the Seleucides appears almost incredible. Patiently searching the forest until he has discovered the usual roosting-place of the bird, the hunter conceals himself beneath the tree, and having noted the exact branch chosen, climbs up at night and quietly places a cloth over his unsuspecting quarry. The species being exceedingly fond of the scarlet fruit of the Pandanus, the roosting-places are easily recognised by the *dejecta*. The plan would, perhaps, by most of us be regarded as very similar to that counselled by our nurses, in which a pinch of salt is the only requisite, but the noiseless movements of the native hunters overcome all difficulties, and the tree once discovered, the chances are said to be considerably against the bird. Finding the tree is, however, not so easy, and the month spent by our natives in the forest resulted in the capture of only one bird. Four days after our arrival they returned again, but this time empty-handed. They had discovered a second tree, but one of the Alfuros of the interior had interfered and shot the bird with his blunt arrow. In the discussion that ensued our man got the worst of it and retired from the field, having very narrowly escaped being added to his enemy's bag.

We spent our time at Samatí in our usual work of collecting and skinning. Lokman, the hunter we had sent over from Waigiou, had of course done nothing, and came to us in his usual deprecatory way, with a full powder-horn and half a dozen of the commonest birds. The Rajah, too, rather disappointed us, and we came to the conclusion that

TWELVE-WIRED BIRD OF PARADISE.
(*Seleucides nigricans.*)

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the noseless and unprepossessing side of his face was a truer index to his character than the other. The men he had supplied to shoot for us with the guns we had sent over by Lokman had, he told us, obtained nothing, and as Lokman himself declared he knew nothing of the matter, we had to let it rest, and permit recently-killed birds, which were no doubt our own, to be brought to us for barter. There was but little new to us among them, but we were able to complete a fair series of the Seleucides, and also obtained a rare and interesting Lory with plumage of an almost uniform black (*Chalcopsittacus ater*).

The Salwatti Papuans, and indeed those of the Rajah Ampat generally, do not seem to evince any very great desire for the clothes and civilisation of the western world, and are on the whole an unprogressive race, holding closely to the customs of their forefathers. This apathy to improvement has no doubt been the chief cause of the non-success of the missionaries in Dorei Bay. Wonderful to relate, it does not even appear that all are open to the seductions of traders' rum, which, as we all know, usually appeals to the crudest and most undeveloped mind, and is a powerful factor in the advance of civilisation and geographical knowledge. The Papuan strikes the traveller as an individual with no little backbone in him; one, in short, who is by no means likely to disappear on contact with the white man, and in other ways besides his cheeriness and boldness is not unlike the African. But in spite of this and the supposed denseness of population, it is not probable that New Guinea will form a market for European goods for many a year to come. We learnt in Ternate that the trade with the island had fallen off considerably, and that it now no longer paid to send schooners to the northern coast for pearl-shell and gum-dammar. So little, indeed, do the natives value the cloth which they obtain in exchange, and which is for the most part stored up unused, that an enterprising merchant, aware of the natives' love for silver ornaments, recently despatched a schooner to buy it back with Dutch dollars, and it was currently reported that he had made a remarkably successful venture.

The Salwatti people are good sailors, and are especially renowned for their boat-building. They construct large praus in the manner I have just described, in which voyages of considerable length can be undertaken, and these craft are even purchased by the Papuans of Dorei Bay. The possession of a good vessel is of some importance in this locality, for Samatí and the neighbouring coast is entirely exposed to the Pacific, and bad weather is not infrequently experienced. During the last day of our visit a very heavy sea was running off the entrance to the Galewo Straits, which would have been far too much for any small prau to face.

We induced the Rajah to let us have one of his bullocks, for which we paid him 100 guilders, or rather more than £8. Whether it was

owing to our prolonged rice diet or not I cannot say, but the beef appeared to us to be equal to any we had ever tasted in England. Both here and at Mansinam the cattle were in excellent condition.

Leaving Samatí on the 19th of November, we swung ship and steered westward through Pitt Strait, where we encountered very heavy rainstorms and the usual strong currents. We were bound for Misol—an island lying to the south-west of Salwatti, at a considerable distance from the mainland, to which, however, it is connected by shallow soundings and innumerable reefs and islets. In order to reach it on the following day we decided not to anchor for the night, as we had hitherto done on almost every occasion in New Guinea waters, and therefore steered S.W. by W. on clearing Pitt Strait, so as to pass midway between Popa and Misol, a course that would apparently lead us well clear of all dangers. An hour or two later, on referring to a manuscript chart we had got from Captain Hakkers, we were rather disconcerted to find a rock marked exactly in the path of the vessel, midway between Popa and the Vienna Islands—a small group to the north of Misol. It was not indicated on two other Dutch charts in our possession, and as the night was dark and the passage not too wide when the doubtful cartography and strong currents of these regions were taken into consideration, we resolved to trust to Providence and ignore it. What its position, if any, may be I cannot say. Fortunately for us it was not determined at the expense of the *Marchesa.*

At daylight next morning we were rather surprised to find what appeared to be a small island bearing nearly west. We had expected to have cleared the group some time before, and, concluding that we had probably encountered a strong current, we kept on our course. Our morning sights, however, placed us so far to the west that we thought we had made a mistake, and took another set. They confirmed the others, and shortly afterwards we sighted high land far ahead, which we knew could be nothing else than the large island of Ceram. Instead of encountering the current, we had thus had it with us, and had far overrun our distance. Navigation in these waters is exciting work, attended as it is by a glorious uncertainty which keeps all one's faculties on the alert. In this case we had to begin with been led into error by Great Canary Island, partly owing to its wrong position on the chart, and partly to its being of such low elevation that only a very small portion of it was visible above the horizon. What at day-break we had taken to be a small island, was in reality Misol itself, which is triangular in shape, and presents a sharp apex to the west, and the land beyond being, like Great Canary Island, too low to be visible, our mistake was easily made.

Misol lies far from the track of vessels, and is little known or visited even by the Malay traders. It is about forty-five miles long by twenty in breadth, and is covered everywhere by dense jungle. The

interior is inhabited by wild Alfuros speaking a language distinct from the coast people, among whom a partial civilisation has been introduced by the Malays. Two so-called Rajahs live upon the island, at Waigamma on the north-east, and Lelinta on the south coast, and a few miles westward of the latter village is the small island and kampong of Efbé, which was visited by Captain Forrest in 1775. It was for this place that we were bound, but charts and directions being non-existent, we had to find our way between a group of small islands and the mainland as best we could, fearing lest the night should come on before we could anchor, yet at the same time not liking to go at any speed on account of our total ignorance of the water. Just before sunset we approached the island, and on firing a gun a prau came off to meet us manned by two or three Papuans under the direction of a Bugis settler. A little later we dropped anchor within stone's throw of the shore in a small but beautifully protected harbour, whose waters were as smooth as glass. It is formed by the south coast of Misol and Efbé—the latter a half-moon shaped island with its concavity facing north, a narrow passage past the reefs off its points being the only entrance to the circular basin thus formed.

It was our intention to leave eight of our hunters in Misol, picking them up on our return from the Aru Islands, and in order that every assistance should be given them, it was necessary for us to see the Rajah, who, we learnt, was at Lelinta. With these people it is not impolitic *se faire valoir*, and we therefore sent a message requesting him to visit us. He came next day—a half-civilised Malay, who was not nearly so important a personage as Tahirun, either in manner or appearance. He could not read, but the sight of the Sultan of Tidor's letter encased in its yellow silk cover was sufficient, and he agreed to take charge of our men, and if necessary to supply them with praus to take them to Waigamma.

The village of Efbé is composed of four houses only, despite the fact that it has been in existence for more than a hundred years. It is placed in a grove of coconut palms, an uncommon sight in Western New Guinea, where this most useful of trees is but rarely met with, for even in those places where the Malays have established themselves they seem to have paid but little attention to its cultivation. Looking to the south and east from the southern shore, myriads of islands are seen to dot the water as far as the eye can reach; not low, irregular, and with tempting sandy bays, such as one sees in the little archipelagos in some parts of the Philippines, or off the Bornean coast, but for the most part small, square, and block-like; devoid of beach and with perpendicular or even overhanging cliffs, reminding us of the nests of islands we had found in the Waigiou Gulf. All are of hard, ringing, coralline limestone which here and there assumes the most fantastic shapes, running

up into wondrous spires and pinnacles like some Gothic cathedral gone mad,—quaint and impossible in outline, and from its knife-like edges utterly destructive to one's boots.

While making a rough survey of the harbour, we were astonished to come across several Eucalyptus trees. Although they extend as far westward as the Timor group, it is probable that Misol is the extreme northern limit of this typically Australian genus. Upon Efbé we found a rare black Lory (*Chalcopsittacus*) rather abundant, closely resembling the species I have already alluded to as having been obtained by us in Salwatti, but exhibiting such differences in plumage as almost entitle it to separate specific rank. Another interesting bird which we here added to our collection was a large Graucalus (*G. melanops*), which had not previously been known to inhabit the north-west islands of New Guinea. The birds of Misol are very much the same as those of Salwatti, but while the latter island is noteworthy for the gorgeous *Seleucides*, and for the absence of the Lesser Bird of Paradise, the latter bird is fairly abundant in Misol and the *Seleucides* unknown.

CHAPTER XXIV.

AMBOINA, BANDA, AND THE ARU ISLANDS.

LEAVING Misol and our hunters behind us, it was not long before a W.S.W. course brought us in sight of the great island of Ceram, with whose high mountains we had previously, but unintentionally, made acquaintance on our voyage to Efbé. We rounded its western end, and gliding almost motionless over a glassy sea which reflected the blaze of sunshine too accurately for pleasure, arrived in thirty-six hours' steaming at Amboina.

The town, which, *par parenthèse*, gives its name to the whole island, lies some little distance up an inlet, whose surrounding grassy hills are a relief to the heavy jungle that nearly everywhere in Malaysia greets the traveller's eye. Such harbours hold out a prospect of good anchorage, but we were destined to be disappointed, and the usual operation of running a cable ashore, so as to make fast head and stern had to be gone through. The Dutch gunboats *Merapi* and *Samarang* lay at anchor near us. Their officers were by this time old friends of ours, for we had met in several ports of the archipelago. We did not venture to disturb them, for it was siesta time, and we knew that, clad in pyjamas, they were slumbering peacefully in their cabins until the hour of the ante-prandial "*pijtje*" should arrive. The climate had not been without its effect upon ourselves, but the desire to get our mails, and to taste bread and vegetables once more was too strong for us, and we landed in the full glare of the early afternoon sun intent on this and other business. We might have saved ourselves the trouble. Amboina slept, and we did but get hot and impatient.

Our walk was not quite fruitless, however. The town boasts of a hackney carriage, which we were fortunate enough to secure, and we drove in it later to pay our visit to the Resident. Almost all the Dutch officials are excellent linguists, and we were therefore rather surprised to find that our host spoke no English, and only a few words of French. Our chief concern was to secure coal, for the supply in our bunkers was nearly exhausted, but it was at first refused us, and we were referred to the Netherlands India Shipping Company, though, thanks to the letters we

carried from the Dutch Admiral, we eventually succeeded in obtaining it. Officialism—contrary to what we had experienced in Ternate and elsewhere—appeared to be in the ascendant at Amboina, and, like the *Challenger's* people, we did not succeed in foregathering with the authorities. The Resident indeed, possibly deterred by linguistic difficulties, did not even return our call. Perhaps there were other reasons, for the society in the town had been for some time rent by many schisms, owing to a feud existing between the civil and military authorities, while the third class, the merchants, occupied an uncomfortable position between the two.

The town itself and its surroundings—the old fort through which one passes to emerge on the wide green *plein;* the red laterite roads leading past the cool-looking huts, well-nigh hidden by the masses of dark green foliage of the fruit-trees; the *orang Sirani*, in whose veins flows the blood of half a dozen nations—Portuguese, Malay, Dutch, Chinese and Kling, dressed in their gloomy and utterly unsuitable costume of black,—all these have been too often described to need repetition. Within the limits of the town may be seen growing almost every kind of fruit or vegetable product that these pleasant islands of Malaysia yield. In a garden to the south, fittingly overshadowed by the wealth of tropical verdure which, in his lifetime, he loved to describe, stands the tomb of Rumphius. He was buried in the grounds of his house, which is, of course, no longer in existence, although another has been built in its place. The monument, a tasteless affair of brick and plaster, was erected at the beginning of the present century at some little distance from the spot where the body lies, and bears, in somewhat curious Latin, the following inscription :—

M. S.
GEORCII EVERARDI
RUMPHII
DE RE BOT. ET. HIST. NAT.
OPT. MER.
TUMULUM
DIRA TEMP. CALAM. ET SACRIL. MANU FERE
DIRUTUM
MANIB. PLACATIS
RESTIT. JUSSIT
ET
PIET. REVERENT. PUBL. TESTIF.
H. M.
IPSE CONSECR.
GODARDUS ALEXANDER
GERARDUS PHILIPPUS
LIBER BARO A CAPELLEN
TOT. IND. BELG.
PRÆF. REG.

AMBOINA A.D. MENS. APR.
A.D. MDCCCXXIV.

The clove is now no longer a monopoly of the island as in old days. The trade appears to be growing less from year to year, and the official return for 1884 shows an export of 2158 kilos only. This, however, it should be said, is the private trade only. That of the Government is not specified in the official publication. Java grows a considerable quantity of this spice, and 4495 kilos of the 14,637 exported by private individuals from the entire Netherlands India come from that island. The tree was not only cultivated upon Amboina, but also upon the three islands, Saparua, Nusa, and Haruku, in its immediate vicinity. Now the chief form in which the ordinary traveller is brought into contact with the article is in the shape of toy-ships whose hull, masts, and rigging are entirely composed of the little dried black buds. These curiosities, which, as may be imagined, are more peculiar than beautiful, are brought on board every ship that anchors in the port, and find purchasers in the fo'c'sle, for Jack would think his list incomplete without one of these and a few of the wonderful shells with which the praus that come alongside are laden. Amboina shells, or rather the shells sold in Amboina—for they are gathered from the surrounding islands far and near—have been celebrated for the last two centuries, and most of those to be seen on the praus which tempt the P. and O. passenger at Singapore have passed through the hands of Ambonese fishermen.

We remained nearly a week in the harbour, glad of rest and fresh vegetables, for we had not had much of either in New Guinea. Just beyond the town the inlet contracts suddenly, and then, widening out, forms a second or inner harbour, which is not much used by shipping. Here are the "sea-gardens" described by Mr. Wallace—"the bottom being absolutely hidden by a continuous series of corals, sponges, actiniæ, and other marine productions of magnificent dimensions, varied forms, and brilliant colours." Other writers have given glowing accounts of the same spot, and the impression conveyed to the reader is that at Amboina alone can be seen the submarine fairyland which they describe, but of which, in truth, it would baffle any pen or pencil to give an idea. Nature is not so miserly in her gifts. In each and all of the coral islands of these seas there are a thousand creeks where we may lean over the boat's side and make ourselves for the moment inhabitants of an earthly Paradise teeming with the same exquisite corals, the same rainbow-banded fish. It is merely the fact that Amboina is a port of call for steamers which has given her this undeserved reputation.

It was the *kentering* or change of the winds during the period of our stay, and the north-west monsoon had just begun to set in. This season, which lasts until May, is the driest, or, to speak more accurately, the least wet, for the rainfall is enormous. Meteorological records kept at the station show it to be as much as 191 inches. Judging from a

day we experienced ourselves, we had no reason to doubt the accuracy of the register. The wet months are said to have an average of twenty-two days' rain, and with the steady high temperature prevailing it might be imagined that the island would be particularly trying to Europeans. This does not, however, appear to be the case. Slight attacks of fever are common, but the hospital—a wonderfully well-kept and cleanly building—was by no means significantly full.

One of the hospital officials, who took an interest in birds, told us that he had some tame specimens of the Great Black Cockatoo, and we accordingly went with him to his house to see them. We had shot these birds in New Guinea—to which region they are entirely confined—but had tried in vain to obtain them alive, and, though parrots of perhaps a dozen species or more were to be found in the *Marchesa's* menagerie, the Microglossus was not among them. It was therefore with the greateast pleasure that we watched these peculiar and interesting creatures. There were three of them, but one only was perfectly adult. They were permitted to go at liberty about the room, and I was struck at once by the extreme slowness, as well as by the clumsiness, of their movements. The common white Cockatoos (*C. alba* and *triton*) are deliberate enough in movement, at least in captivity, but, compared with Microglossus, they are rapid. The huge head and beak are rendered more conspicuous by the meagre size of the body, and the pectoral muscles are so little proportionate to the size of the bird as to render it probable that it resorts to flight as little as it can. It exists solely by virtue of its gigantic beak, for, as Mr. Wallace has pointed out, no other bird is able to open the Kanari nut, which forms its chief food. We should much have liked one of these birds to add to our collection, but we could not prevail upon the owner to part with them.

Amboina market is an excellent one, and the quantity and variety of fishes to be seen in a morning's stroll through it are astonishing, so much so that one no longer wonders at the seven hundred and eighty species recorded by Dr. Bleeker as inhabiting the waters of the island. Fruits, too, are abundant, and among them was a wonderful banana, which none of us had tasted before, pure white, not creamy, in the colour of the flesh, and in flavour something between a pine-apple and a "pear-drop." Out of the many dozen varieties of this plant to be met with, from the large 15-inch long "horse plantain" to the tiny "silver banana," I have never eaten anything at all like it. It was delicious, but no trace whatever of the banana flavour was to be detected in it.

We left Amboina late one night and dropped slowly down the inlet. Around us, in every direction, were the lights of innumerable praus engaged in fishing, causing us no little anxiety from their numbers,

which was not lessened by the fact that in many cases the fishermen deferred the lighting of their torches until we were close upon them. Fortunately we passed through without accident, and on the afternoon of the following day the *Marchesa* anchored in Banda harbour.

Banda, the most eastern settlement of the Dutch, lies due south of Ceram, and about sixty miles distant from its coasts. For all practical purposes the group may be said to consist of the three islands which form the harbour—Gunong Api, Banda Neira, and Banda Lontoir. The latter is half-moon shaped, and produces the nutmegs which for the past three centuries have made its name famous. Opposite its concavity lie the two other islands, almost touching one another, the first one, as its name implies, being the volcano, the other having built upon it the town with its three old forts.

Those who are learned in such matters have suggested that Banda Lontoir forms part of the lip of an ancient crater of prodigious size, from whose centre the present cone of Gunong Api has since arisen, and the appearance of the former with its steep sides and semicircular shape is certainly strongly in favour of the theory. One would have imagined that the thought of living in the very centre of a crater would have been a trial even to the strongest-nerved. But, though they have had no little experience in the way of earthquakes and eruptions, the islanders do not seem to disquiet themselves with possibilities. The usually-smoking peak of Gunong Api showed its head in unclouded clearness during our visit. It had not given any sign of activity for some little time, and the people told us that if it remained quiescent much longer an eruption or a severe earthquake would probably result. The information was given with the off-hand manner in which an Englishman would predict a wet day on the morrow. The volcano is of insignificant size—little, if at all, above 2000 feet in altitude—but the bareness of its slopes and the sharpness and regularity of the cone make it look much higher. Its base is about two miles in diameter. The summit—to which our energetic chief engineer, Mr. Flowers, was the only one of us to ascend—has a crater about a hundred and twenty yards across, and of no great depth. From it small clouds of steam arose in various places, and the stones around were thickly coated with layers of pure sulphur.

A narrow creek—the "Zonnegat"—only navigable by small craft, separates Gunong Api from Banda Neira. It is on this island that the town is placed, its cool white houses overshadowed by dark-foliaged trees dotting the whole length of the southern shore. Neira is about two miles in length, and with the exception of Papenberg or Flagstaff Hill—an abrupt jungle-covered rock of 700 feet which dominates the town—is of no great elevation. To this *uitkijk* we one day climbed, —a steep ascent through an almost uninterrupted series of nutmeg

plantations. The view, looking down upon the harbour, is very beautiful, and, indeed, what views are not in these favoured islands? It has not, of course, the grandeur of Ternate, with the noble peak of Tidor and the mountains of Gilolo glowing a deep blue across the magnificent sweep of lake-like sea, but in an unpretentious way it is nearly as lovely. At our feet lay the town—the houses of the better class with red-tiled roofs, but all furnished with the snowy white pillars and *stoeps* that are the leading characteristics of Dutch Malaysia. Across the landlocked harbour rose the steep precipices of Banda Lontoir, dark with the large forest-trees shading its nutmeg "parks" and fringed with broad shores of sandy mud. Westwards we looked down on the Zonnegat dotted with fishing praus, the slopes of the volcano rising steeply from its farther bank. Behind us, from the foot of an almost perpendicular cliff, the open sea stretched away to the horizon, with the little island of Suangi in the distance. A lovely view indeed, bathed in the soft haze that enhances the beauty of every tropic landscape. So peaceful and quiet was it that it was hard to realise the loss of life and property caused by past eruptions, and to reflect that others quite as terrible and destructive are, in all human probability, in store for the unfortunate islanders. The Krakatau eruption, we were told, was felt here as a kind of tidal wave rushing through the harbour from west to east, but no damage of any importance was caused by it.

Although, as I have already mentioned, considerable quantities of nutmegs are grown upon Banda Neira, it is upon Banda Lontoir that they are chiefly cultivated. They are articles of export from many settlements in the vast possessions of Holland in these seas, but nowhere do they grow to such perfection as in the Banda group, for the tree is here indigenous, and is attacked by few of the diseases that impede its growth in other places. All the year round—as seems fitting in these Gardens of Eden—it is in fruit and flower, and any and every day the natives may be seen gathering the peach-like-looking spice. This is done with a special instrument—a bamboo pole with a hook, and a basket near the top which catches the fruit as it is detached. The fleshy exocarp is for the most part wasted; the mace is removed and dried in ovens, and the nut is kept to dry, enclosed in its outer shell, until it is ready for export. The tree requires shade and protection, and is consequently grown beneath the lofty Kanari, the noblest nut-tree in the world. It is an ideal cultivation, this nutmeg-growing,—a sort of high-art agriculture befitting the perfumed product and the sunny isles in which it ripens.

The Government monopoly has long since been given up, and every one is permitted to plant and sell as he pleases. But the industry, so far as we could learn, is chiefly in the hands of large proprietors. The official "Statistiek" gives no information as regards Banda, the exports

of which are apparently included in those of Amboina, but from this latter port 635,491 kilos of nutmegs were shipped to Holland in 1884, their value amounting to £76,258.

The neatly-roaded town with its white houses and cool, shady

FRUIT OF THE NUTMEG, SPLITTING AND SHOWING MACE.

avenues, the sloping beach dotted with canoes with quaint upturned peaks at the stem and stern, were only such as we had met with half a dozen times before at the various Dutch East Indian ports, unless, perhaps, the roads were a shade neater, the peaks of the praus slightly more elevated. To the west, almost under the volcano, is an old fort,

now turned into a "Pakhuis" or magazine. Near it are the houses of the Chinese merchants, dealers in and exporters of the various products of the Malay Archipelago, in the stores of one of whom we found a tolerably large collection of Paradise and other birds' skins from the Papuan region, interesting enough to examine, but for the most part useless except to the plumassier, from their mutilated and moth-eaten condition. Entire carapaces of tortoise-shell were here too, some of them of great thickness and beauty, and numbers of pearls, for one of which, as large as one's little finger-nail, we bargained in vain. Eastwards, the town follows the shore almost to the end of the island, where it eventually loses itself among the nutmeg-trees. It is large enough, we learnt, to contain about 7000 inhabitants. Of how many races and nationalities these may be I would not venture—in this strangely peopled Malaysia—to guess.

Banda is full of forts, relics of the times when spices were things to be fought for. The "Pakhuis," which I have just mentioned, was one, and on the western horn of Banda Lontoir are the remains of another, erected about three centuries ago by the Portuguese. In the middle of the town, and close to the beach, stands Fort Nassau, built by the Dutch in 1609. But the largest and most important of all, the most conspicuous building on the island, both from its size and position, is Fort Belgica, perched on a little plateau just above Fort Nassau. Like the latter, it was built at the time of the first settlement by the Dutch, and has remained almost unharmed through half a score eruptions and earthquakes, so solidly has it been constructed. The steep slope of grass-covered *glacis* leads up to heavily-built walls, within which stands the fort itself, pentagonal in shape, and with a large round tower at each angle. It is painted white from base to battlement, and at a distance is as imposing as Windsor Castle, but its armament is by no means on a corresponding scale. Lord George Campbell, indeed, in his amusing "Log Letters," tells us that there were only two guns capable of returning the *Challenger's* salute, and that one of them was placed *hors de combat* at the second round!

The Banda group would probably prove an interesting locality for the naturalist, for many species are peculiar to it, and there are doubtless many others that yet remain to be discovered. Such work, however, demands time, and we had none to spare. We had determined on visiting the Aru Islands to shoot the Great Bird of Paradise, and therefore restricted ourselves to mere sight-seeing. To those already acquainted with the Malay Archipelago Banda has not much—except its beauty—to show. The nutmegs and the mountain are its only lions, and our three days' stay sufficed to see the spice-groves and to make as close an acquaintance with the volcano as we desired.

We left the harbour by the eastern entrance on the night of

December 1st, and set our course east by south so as to pass to the north of the Nusa Tello Islands, a little-known group lying westward of the Ké Islands. Two islands—Topper's Hoedje and Little Fortune—were marked in the English chart as lying in our track, but we passed almost over their assigned position without sighting them, and there is no doubt that they do not exist. On the morning of the 3rd we made the Aru Islands, and little more than an hour later came to anchor in Dobbo Harbour.

The Aru Islands, which are connected by shoal water with New Guinea and have a strictly Papuan fauna, are very numerous, although closely grouped together. They run north and south between the 5th and 8th parallels of S. latitude, and have an average breadth perhaps of thirty or forty miles. As we neared our destination the low flat land was seen stretching away on either hand as far as the eye could reach, thickly clothed with lofty forest-trees. Dobbo is placed at the northern end of the small island of Wamma, and rounding the point we found a good anchorage between it and Wokan, the largest of the northern group. Except to the north-west, from which direction we had entered, the monotonous line of heavy jungle surrounded us on every side. The surface of the water was without a ripple, and the lifeless, steamy air reminded us of the climate of Ansus, whose gloomy, mangrove-lined creeks and oppressive heat had already reduced our stock of energy to a minimum.

The Posthouder, who came off to visit us shortly after we had anchored, had little or nothing to say in favour of the place. He was suffering from fever, and told us that he considered the islands to be most unhealthy for Europeans. The water is deficient both in quantity and quality, and, during the annual influx of traders, cases of Beri-beri are very common,—so common, indeed, that seventy-three persons had died in the season of 1883. The Posthouder was going through the process of acclimatisation, having arrived but a short time before,—the first Dutch official sent to Aru. We had not heard that a post had been established here, and were much astonished at being greeted by a white man. He, I imagine, was not sorry to see us, for the life to any one but a naturalist must be terrible. A mail reaches Dobbo four times a year. Otherwise there is no communication with the outer world except such as is afforded by the trading praus at the change of the monsoon.

The village of Dobbo is quite *sui generis.* From the northern end of Wamma a flat, wedge-shaped spit of yellow sand juts out into the sea for a distance of a couple of hundred yards. The apex forms a sort of Piazza del Popolo, from which radiate the three rows of houses and two streets that form the settlement, flanked by the two prau-covered beaches. The houses have high-pitched roofs, and the usual

untidy appearance that attap walls alone produce in perfection. They are really all shops, as I shall shortly explain, but there is not much sign of this from the street. At the end of what might be termed the Corso, and facing us, stands the Posthouder's house, over which wave

A STREET IN DOBBO.

the graceful fronds of half a dozen coco palms. A few pigs and chickens are routing in the sandy streets, two or three enormous-hatted Chinamen squat at the doors of their huts, and a little group of small black imps with large stomachs and stick-like legs play at a corner. This is all that we see on first landing, and nearly all that the place has got to show. It is not the trading season, and Dobbo is deserted.

The place is the Nischni Novogorod of Malaysia. The existence of some general mart at the extreme confines of civilisation, where the products of human brain and hand could be bartered for those of Nature, became a necessity years ago, and Aru, whose pearls and Paradise birds have been articles of trade for the last two centuries, gradually established itself as the commercial centre.[1] From Java, from Southern Celebes—home of the Bugis trader,—from Bouru, Ceram, and Timor, from a dozen other places in these island-covered seas, so soon as the west monsoon has fairly set in, come the praus, laden with rice, calico, gin, hardware, and the various products of the West. By the end of January trade is in full swing, lasting till, in July, the east monsoon is sufficiently established to enable the traders to depart, taking with them the tripang, pearls and pearl-shell, sharks' fin, birds' nest, tortoise-shell, and birds of Paradise, which form the chief articles of produce of these and still more eastern regions. Dobbo during this season, as has been so admirably described by Mr. Wallace in his "Malay Archipelago," is busy enough, but at the period of our visit there was about as much life in it as in a Belgravian street at the end of August.

We walked up to the Posthouder's house, and chatted with him over the inevitable cheroot. Previous to his arrival all disputes or crimes occurring among the people were tried among themselves, but Dutch authority having stepped in, a gaol was considered necessary, and this, together with the other *desideratum* of Dobbo,—a market-place—he was engaged in constructing. Ironwood alone was to be used, owing to the abundance of white ants. We watched the few Buginese engaged in the work; they used the adze with the dexterity of a European, but leisurely, and as if impressed with the importance of their work. We felt that we should have done the same. Dobbo is not the place for any violent physical exertion.

It was not long before we foresaw that our stay in Aru would be a short one. We had come at the wrong season to see the trading life of the place, and this, of course, we were prepared for. But we had not expected to find—as we were assured on all hands was the case—that the Great Bird of Paradise was out of plumage at this time of year, and would not assume its full dress until April. Every one told us the same story, and that the beautiful plumes remained for not more than two or three months.[2] This was a great disappointment, as we had looked forward to adding the bird to the already large list of Paradiseidæ we had collected, and were anxious to watch its curious

[1] The little island of Kilwaru, between Gissa and Ceram Laut, at the east end of Ceram, is another trading place of this kind, but of much less importance.

[2] This is doubtless incorrect—the bird (like *P. minor*) retaining its plumage the whole year round. But it is quite possible that at certain seasons the full-plumaged males may segregate in the less-known parts of the island.

habit of courtship, when perched, a dozen or more at a time, in the "play trees," the males display their lovely plumage to the sober-coloured females around. We had come, in fact, chiefly for this very purpose, and now that we had failed in it, there was little to keep us in the Arus. We had no time to devote to real work in the islands; two or three of our men were suffering considerably from fever and other tropical disorders; and it was therefore settled that we should commence our homeward voyage in a week's time. Meanwhile we sent a prau with our two remaining hunters to Wanumbai, a village to the south of Wokan, with instructions to shoot and collect what they could.

The eastern shores of the Aru group—the *diblakang tana* or "back country," as it is called in Malay—form the chief locality for the pearl-fisheries, an important industry of the islands. They are unsurveyed, and unvisited by European vessels, few of which indeed come even to Dobbo. Many praus were away fishing at the time of our visit, and as we were anxious to learn the whereabouts of the fleet, and if possible to obtain some pearls, we despatched a canoe to Batulei, a little island on the north-east side, for information. In Dobbo there were no pearls for sale. Those we had seen at Macassar from these fisheries were for the most part small and not of very good colour, but some were of a beautiful deep bronze shade.

It rained heavily and often during our visit, and we understood the reason why advantage was taken by the Dobbo people of every sunny day to expose their goods on mats before their doors. It was tantalising to see the skins of the Paradise birds thus drying, their golden plumes glittering in the sun, and to reflect that we should have to be satisfied with buying them. From the accounts we received it seems that this bird (*P. apoda*) is decreasing in numbers in the Arus, or at any rate in the northern islands. The "play trees," on which the greater number of them are shot, are known over a wide extent of country, and each belongs to the native who has discovered it. The claim to the tree having once been established by the mark of the finder, his rights are duly respected, and all poaching is by general agreement avoided. The market price of the *burong mati* has risen considerably of late years, and while Mr. Wallace, in 1857, paid as little as sixpence for the native-prepared skins, they cannot now be obtained at Dobbo under seventeen times that sum.[1]

There were but fifty people in the whole village, we learnt, but the Posthouder told us that, at the height of the trading season, there would be between four and five thousand. How they can all find accommodation it is difficult to understand, for there is certainly not house-room

[1] The prices of the six kinds of Birds of Paradise used in trade vary considerably at the different islands. They appeared highest at Ternate. The following are the prices

for half that number. Many must sleep in the curious lumbering praus that bring them to the island. Ten or a dozen of these we found hauled up on the sandy beach. They were about the size of a fifty-ton yacht, and were all more or less out of repair.

We spent a long day in the forest on Wokan Island, in chase of the Paradise birds. The little King-bird seemed not uncommon, but, though we heard the loud, rough cry of *Paradisea apoda* on several occasions, we could not get even a glimpse of it. The deep *boom* of

BUGIS PRAU, DOBBO.

the large fruit-eating pigeons is a characteristic sound in the forests of the Papuan region. The sense of hearing is perhaps almost equally powerful with the sense of smell in recalling past scenes to the mind, and I am sure that nothing would more quickly conjure up before my mental vision the picture of these magnificent jungles, and the varied and beautiful forms that they display than the sound of this curious and

per "koddy" of twenty skins at that place and Macassar, together with those asked by the Rajah of Salwatti :—

	Macassar.	Ternate.	Salwatti.
"Males" (*P. apoda*)	90–100	...	...
"Females" (*P. minor*)	70–90	85–120	80–90
"Red birds" (*P. rubra*)	80–110	100	...
"Many-wires" (*S. alba*)	110–130	170	140–150
"Green birds" (*D. speciosa*) . . .	50–70	...	30
"King-birds" (*C. regius*) . . .	30–40	...	20–30

These prices are in gulden of one shilling and eightpence.

most undove-like note. We obtained here two species of the genus that we had not met with before—*Carpophaga zoeæ* and *muelleri*—fine birds about eighteen inches in length, whose bodies appeared at our dinner-table, while their skins were in due course packed carefully away in our collecting-boxes.

Immediately behind the Posthouder's house the forest rose like a wall. It was impenetrable on account of a small swamp, and we had to take to the beach for some distance before beginning to shoot. A species of Cycas grows very abundantly along the shore, as well as great quantities of Pandanus, whose bright scarlet fruit we gathered every morning for our Twelve-wired Bird of Paradise, for he had got rather tired of his usual cockroach diet. About a mile from Dobbo is a large plantation owned by the Kapten Laut, the chief Malay of the place, and the outskirts of this furnished us with a fair collecting ground. It was interesting to observe how wonderfully the bananas flourished, although the soil in which they were growing was apparently composed almost entirely of shells and broken coral.

Although there were always half a dozen small dusky beaters to assist us in our shooting excursions, and to carry our cartridges or collecting-stick, scarcely a single pure bred Papuan was to be seen at Dobbo. Chinese and Malays of various tribes were the chief inhabitants, and in the stores of the former we managed to pick up a few skins of *P. apoda* in fairly good condition, but there was nothing except these to interest the traveller—naturalist or otherwise—who cared to penetrate the gloomy, Chinaman-perfumed interiors of the huts. Every building in Dobbo is a store, if we except two or three little mosques or chapels near the landward end of the village—quaint little edifices built of attap, and with a sort of box in the centre, covered with a white cotton canopy, much like a Datu's tomb in Sulu. Here everybody, no matter of what religion, makes his prayers before departing on his homeward voyage. A little further towards the forest was the graveyard, over which spot the pretty Brush-tongued Lories (*Trichoglossus nigrigularis*) passed every night at sunset, their line as unvarying as that of ducks at flight-time.

Achi, an excellent boy whom we had brought from Malacca, collected daily for us in the forest, and usually returned with his satchel full of pill-boxes, each tenanted by a creature or creatures unknown. The opening of these was, I confess, somewhat of an ordeal to me. Within might be some harmless and lovely butterfly, but the occupant was quite as likely to be a formidable centipede six or eight inches in length, or some great spider carrying about with it, beneath the abdomen, a disc-shaped egg-case as large as a shilling. The adventures we met with in disposing of our captures were numberless, and after a few of them I found it quite unnecessary to caution anybody against opening any stray pill-box they might come across.

The magnificent bird-winged butterfly, known, I believe, to entomologists as *Ornithoptera arruana*—an animated emerald some seven inches across—was apparently abundant in Aru, and Achi brought in four nearly uninjured specimens one morning. We were also fortunate in getting many pupæ of these exquisite creatures. I discovered that it was necessary to suspend these in a vertical position—a fact of which I had not been previously aware. Unless this is done, the meconium or liquid in the pupa-case—of which there is nearly a teaspoonful—entirely ruins the beautiful plumage. I lost several specimens in this way before discovering the remedy.

On the 8th of December our hunters returned from Wanumbai, and we learnt that two German collectors, of whom we had heard from the Posthouder, were in that neighbourhood. They had been nine months in the islands, and were said to have suffered terribly from the effects of the climate. Our men brought very few specimens, and those of no great interest. The natives who had been over to Batulei also returned with the information that the praus had, up to that time, got few or no pearls, owing to a continuance of bad weather. We therefore determined to sail at once. It was a disappointment to have to limit ourselves to the mere tourist's view of the Arus that we had thus obtained, but the season was unfavourable for us, and it was doubtful whether, under any circumstances, we should be able to reach England before the summer, as we desired.

Our departure was delayed by a final attempt to get a bird we had long coveted, but bid for in vain. It was a tame specimen of the rare Blue-streaked Crimson Lory (*Eos cyanostriatus*)—a native of the little-known Timor Laut group, which lies to the westward of the Aru Islands. Its owner had always refused to sell it, but at the last moment he changed his mind and paddled off with it to the yacht. The price asked was, however, so exorbitant that our negotiations again fell through, and the lory and its owner departed for the shore. The only unpleasant reminiscence I have of the Aru Islands is that of the little spot of red fading rapidly in the distance. A few moments later we were dropping slowly out of the harbour—Homeward-bound.

CHAPTER XXV.

THE HOMEWARD VOYAGE.

If my travelled reader has ever chanced to be a passenger on board a West African steamer—where, from the number of monkeys, parrots, snakes, Whydah birds, and other creatures around him, he will come to the conclusion that there is almost as much trade in zoological specimens as in palm oil—he will be able to form some idea of the appearance of the *Marchesa's* decks at this period of her cruise. The burly form of "Misky"—happily for our peace of mind—was no longer to be seen vainly engaged in trying to annihilate his enemy the mongoose. He had taken his passage for England from Hongkong, and had long ago reached his destination—the Zoological Society's Gardens—whither the two Anoas were following him. We missed, too, the solemn face of "Bongon" the orang-utan, who, seated in his arm-chair, with his blanket drawn tightly round him, was always to be found in his favourite position near the wheel. Their places were filled by fresh additions to our menagerie, to many of which I have have not yet alluded.

The gem of our collection was, of course, the Twelve-wired Bird of Paradise. He had got tame very quickly, and would readily eat from our hands. By day he usually remained more or less quiet, and was fond of resting motionless with the head sunk low on the chest, but in the morning and evening he moved restlessly from perch to perch with a peculiar bounding hop. His manner of feeding was wonderfully neat. Any cockroach that ventured into his cage he would catch with lightning rapidity, seizing it across the body with his long, sharp beak. Then, giving it a sudden snap, he would throw it in the air and catch it lengthways, displaying the vivid grass-green colouring of his mouth and throat in the operation. The only note he ever uttered was a single unmelodious croak. The least fall in temperature seemed to be felt by this beautiful creature, and though every care was taken of him, he died before we got beyond the tropic.

Of the Lesser Bird of Paradise we had four living specimens, of which we succeeded in bringing three to England.[1] They gave us, perhaps, more trouble than any of our pets, owing to the constant care they required and the size of the cages with which they had to be provided, but we were amply rewarded by our success in bringing them to Europe, and by the opportunity they afforded us in watching the development of their plumes. They were without these when we first obtained them, and soon afterwards the feathers of the head dropped off, leaving them partially bald, and in anything but an ornamental condition. New feathers, however, rapidly appeared. They were almost white at first, but soon assumed the delicate yellow shade of the adult dress. The long, splendidly-coloured side plumes, which give the appearance of a golden meteor to the male bird as he flashes through the forest, came rapidly at first, but their later growth was extremely slow. These birds—which we did not succeed in getting as tame as the Seleucides—were fed on boiled rice, cockroaches, and banana, with an occasional meal of chopped meat.

The East Indian Archipelago is pre-eminently the home of the pigeon, the parrot, and the kingfisher. Birds of the latter family are, of course, seldom to be obtained alive, but we had numberless specimens of the others in our aviary. The magnificent Crowned Pigeons (*Goura coronata* and *victoriæ*) are very lethargic in their habits, and soon get tame in confinement, but we were unable to give sufficient room to the number we had, and in spite of their being very hardy birds, only six or seven reached England out of the twenty-five we had collected. By their side the large Carpophagas, of which we had three or four species looked almost pygmies. The little doves of the genus *Ptilopus*, conspicuous even more for their extraordinary colouring than their tiny size, we did not succeed in obtaining alive.

Noisiest of all our pets were the parrots. During the mid-day heat we were left in comparative peace, except when a quarrel arose between the occupants of two adjacent perches. But in the early morning, and for an hour or more before sunset, the ship was a perfect pandemonium. Cockatoos swore and chattered; lories fought and flapped their wings and shricked at the top of their voices, and the dull, heavy *Eclectus*—birds as stupid and uninteresting as they are gaudy in colour—alone sat motionless, adding their monotonous scream from time to time to the tumult. Writing was almost as impossible during these hours as it would have been in the parrot-house of the Zoological Gardens. As we got westward the noise diminished day by day. The brilliant coloured lories of New Guinea seem little able to

[1] Two of the three have since died, but the other is alive and in excellent health in the Gardens of the Zoological Society, where he has now been for more than four years.

bear change of temperature or confinement, and long before we arrived at Singapore fully half of them were dead. We missed most of all the rare Black Lory from Misol (*Chalcopsittacus ater*), whose absurdly extravagant demonstrations of affection had made us all very fond of him.

Forward of the bridge, the decks presented still more the appearance of a menagerie. Monkeys sat gibbering on the bulwarks, and large white cockatoos, with their moustaches bristling, sidled solemnly up and down their perches, envying, no doubt, the freedom permitted to the cassowaries, who roamed from end to end of the ship, devouring now a lump of coal, now the bread or biscuit from the dinner-table. We had, at one time, four of these creatures, but two of them, which were little more than nestlings, soon died. Our largest bird (*C. bicarunculatus*) was obtained in Aru, and judging by his size must have been very nearly adult, although the bright blue colouring of the neck, which seems to be the final sign of maturity, was not quite fully developed. His appetite was excellent. Coming up suddenly from below, I once discovered him in the act of devouring one of a number of bird-skins I had spread out in the sun to dry. A swelling in his neck revealed the position of my specimen, and I in vain endeavoured to effect its regurgitation, both for my own and his sake, for the skin was liberally dressed with arsenic soap. The bird and his œsophagus were, however, equally opposed to this, and I had eventually to assist its progress in the other direction.

Our Dorei Bay cassowary was much younger. He had none of the solemn imperturbability of the other, but was as playful as a puppy. His favourite diversion was to get up a sham-fight with a ventilator, dancing round it in the most approved pugilistic style, now feinting, now getting in a right and left. The blows were delivered by kicking out in front, and appeared to be almost ineffective, and quite unlike the really formidable method of attack adopted by the ostrich. The decorum of our service on Sundays was often considerably disturbed by his appearance among the congregation, engaged in a lively skirmish with a kangaroo,—an amusement which invariably drew a select gathering of our dingo "Banguey," various dogs, and a tame pig to see fair play.

Of our four-legged pets perhaps the most graceful was a little Flying Phalanger (*Belideus breviceps*), which we had obtained in Waigiou. These creatures are common to New Guinea and Northern Australia, and are chiefly nocturnal in their habits, haunting the thick foliage at the crowns of palms. The tail is not prehensile as in the true Phalangers, but the stout, sharp claws are well adapted for clinging to the smoothest bark. The fur is exquisitely soft and of a delicate shade of grey, against which the black dorsal stripe and white

under-surface show to advantage. We quite failed to tame this little animal, whose loud note of alarm and anger when its cage was disturbed made the sailors give it the name of the "clock-work mouse."

BELIDEUS BREVICEPS.

A whole page of description would not more accurately convey the nature of the sound.

While in Dorei Bay we were fortunate enough to become the possessors of a pig of tender age, who had, perhaps, more character in him than any other member of our menagerie. In many parts of New

Guinea the women make pets of these animals, carrying them about and suckling them with their own babies, but I do not remember whether "Chugs" had been reared in this fashion or not. He was bestriped longitudinally with alternate bands of black and yellow, and, though hardly more than eight inches long when he first joined the ship, was afraid of no living thing aboard. He roamed the deck from morning till night, chasing the cockroaches and devouring them with much gusto and smacking of lips, grunting contentedly the while. When tired, he would nestle himself up on the curly coat of Dick, the retriever, or alongside the big cassowary, who would regard him wonderingly, and as if debating his suitability for food. Chugs grew so rapidly that he was soon nearly as big as Dick, but he still continued to use him as a sleeping mat, and towards the end of the voyage poor Dick hardly dared to lie down.

We had various other animals in our collection, but, as I am not writing a description of the Zoological Gardens, I will confine myself to alluding to two, who were certainly the tamest and most attractive of all our pets. They were Tree-kangaroos of two species (*Dendrolagus inustus* and *ursinus*), not larger than small hares, but with tails of great length. The first-named kind is of a uniform dull grey; the other, much prettier, dark brown with a white blaze on the face. It was most interesting to watch the habits of these animals, who roamed freely about the ship, both above and below deck. In Australia we are accustomed to the kangaroo as a terrestrial animal, admirably adapted to the flats or open forest country in which it lives. But in New Guinea the dense jungle necessitates a change in habit, and we accordingly find in *Dendrolagus* an instance of a ground animal which is gradually becoming arboreal in its mode of life. The hind limb is shortened, although still of unsuitable length, and the claws are sufficiently developed to enable it to cling strongly to any object. But although a tree-haunting animal, it is as yet a tyro in the art of climbing, performing this operation in the slowest and most awkward manner. Our pets, for instance, would take a full minute or more in ascending the back of a chair, but their hold was most secure, and if we wished to pull them off we had no little difficulty in doing so, so tightly did they cling.[1] I never saw any creature tamer than *ursinus*. He was never happy unless at our feet, and would follow our every movement. This habit was, I believe, the primary cause of his death, for he was tumbled over or trodden upon at least half a dozen times a day. The climate of Europe proved too much for his relative *D. inustus*, and he died the day before we reached England.

Leaving Dobbo we set our course N.W. along the deep-sea channel

[1] The tail, although not actually prehensile, is used by them to press against the branches, and is thus of considerable assistance.

which separates the western coast of New Guinea from Ceram. On the morning of December 10th we sighted a perfect nest of small islands lying around the southern shores of Misol, and, giving them a wide berth, followed as far as possible the track by which we had previously approached the island. An hour or two later we were once more at anchor in the harbour of Efbé.

We sent a prau at once in search of our hunters, who, we heard, were at Lelinta, and the same night they arrived on board. All were well, with the exception of one man, who had suffered rather severely from fever. They had been well treated and supplied with a prau as we had requested, but they told us that, owing to contrary winds and strong currents, they had been five days in reaching Waigamma on the north-west coast. Nearly 150 specimens of birds had been collected, but although there were several rarities among them, there was not a single new species. Perhaps the most interesting bird was a *Nasiterna* or Pygmy Parrot (*Nasiterna pygmæa*), hardly larger than the species figured on page 397. Both the King-bird and Lesser Bird of Paradise were in the collection, the former being tolerably abundant, but neither the Seleucides nor the Ptiloris, or Papuan Rifle-bird, had been obtained, and there is very little doubt that the former bird does not exist upon the island.

We paid the men of the prau, giving to each a knife, an axe, a sarong, a coloured handkerchief, and a small roll of blue cloth, and towards midnight of the same day sailed for Batchian, being able to make our way out of the harbour in the dark, thanks to the rough chart we had previously made of it.

Our voyage was saddened by an unlooked-for event. On the 11th December our boatswain, Samuel Scarff, of whom I have made mention on a previous page, died of scurvy. He had been ailing for some little time, but had only sought advice about three weeks before. In spite of everything that could be done for him, he got gradually weaker from day to day, and sank rapidly at the end. The disease was almost typical from its onset, except perhaps in the rapidity of its course.

I had always considered, in common, no doubt, with the majority of physicians, that scurvy was pre-eminently the preventible disease, and that—given the necessary antidotes—no case of it should ever prove fatal. Yet here, in a well-found yacht, which had left a regular port (Banda) but ten days, and another (Amboina)—at which a week's stay had been made—only fourteen, we had evidence that this rule is not an invariable one. There are certain cases of the so-called "land-scurvy" in which antiscorbutics are of little or no avail, and the disease appears to progress steadily towards a fatal termination. Our poor shipmate's case, which was an isolated one, seemed to be much of this nature, and the vegetable diet which we were able to give him

was of no efficacy whatever, although adopted from the very onset of the disease. I have been led to mention the occurrence as we are perhaps rather too prone to regard lime-juice as absolutely prophylactic, and to attach blame to the leaders of Arctic expeditions in which scurvy has occurred. The regulations as to the use of antiscorbutics are among the wisest of those of our mercantile marine, but it is possible that in certain rare cases the disease may—with our present knowledge at least—be unavoidable.

We spent an unpleasant night. A strong current had set us considerably to the southward, toward the Obi group, and from this and other causes we had some difficulty in making out our position. We did not like to turn in, but had we done so we should not have got much sleep, for hour after hour the melancholy tapping of the carpenter's hammer rang through the ship, only ceasing with the dawn. As the sun rose the mist cleared off the land, and the huge mass of Labua revealed itself on our starboard hand. Before noon we entered the straits, and took up our old anchorage off the village of Batchian.

In this part of the Moluccas what little bad weather is experienced appears usually to occur in the months of December and January. At six o'clock on the evening previous to our arrival, a sudden and violent squall from the S.W. had struck the village, unroofing the house of one of our Dutch friends and burying his wife in the ruins. Fortunately she escaped almost uninjured. We were told that squalls of this nature were most unusual, the northerly monsoon having set in steadily. Two days previously the sound of distant explosions, resembling those heard during the eruption of Krakatau on the 26th August, had been noticed. We had also heard them at Misol, and thought it probable that on reaching Singapore or Ternate we should get intelligence of some fresh volcanic eruption. We were, however, disappointed in our expectations, and the noises we heard must either have proceeded from some active volcano in the little-visited islands in the direction of Timor, or possibly from subterranean disturbances affecting a wide area.

We buried our poor comrade beneath the walls of the old Portuguese fort, and sailed two days later for Ternate, passing, as before, through the narrow and intricate Herberg Straits. We had started late, and the passage of the southern portion resolved itself into a race against time. Before darkness overtook us we emerged into the stretch of open sea which intervenes between the two narrows, and there waited for the moon to rise.

It was a magnificent night, or we should not have ventured upon the rather risky bit of navigation that lay before us, and towards 9 P.M. we again proceeded on our course through the northern portion of the straits. The scenery was not different in any way from that to be met with in a thousand places in this part of the world, but the flood of

SUPERB BIRD OF PARADISE.
(*Lophorhina superba.*)

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moonlight pouring upon the calm water and snowy coral beaches, the feathery outlines of the coco palms whose fronds hardly moved in the still night air, rendered it of almost fairy-like beauty, and the effect was still further heightened by the singular narrowness of the channel through which we were passing. We arrived at the entrance of the straits without accident, in spite of the predictions of our Batchian friends, and on the following day came to anchor in the harbour of Ternate.

We found very different weather prevailing from that we had experienced on our former visit. Strong winds from the N. and W., with constant rain-squalls, continued during our stay, causing a choppy sea in the harbour and rendering landing a difficulty. This is the worst season of the year in Ternate, and the bad weather is expected to last during the greater part of December and January. Everything was damp and chilly, and the sun seldom broke through the masses of heavy cloud.

On the day following our arrival a trading schooner entered the harbour and anchored near us. She came from New Guinea, and from one of her crew, who shipped with us for the voyage to England, we learnt some details of her cruise. Leaving Ternate almost at the same time as the *Marchesa*, she had proceeded to the Willem Schouten Islands lying to the north of Jobi. Her crew, consisting of two Europeans and eight Malays, soon became attacked with beri-beri—a disease which, in spite of the frequency of its occurrence in the East, still owns an unknown cause. It is usually of a very fatal character, and proved to be peculiarly so in this case, for the natives had died one by one, and when the vessel arrived in port there were only three persons alive on board,—the captain, one Malay, and our informant—the latter being the sole remaining individual of the ten in health. It was with the very greatest difficulty that they had been able to work the ship, and had they chanced to meet with adverse winds every soul on board would probably have perished.

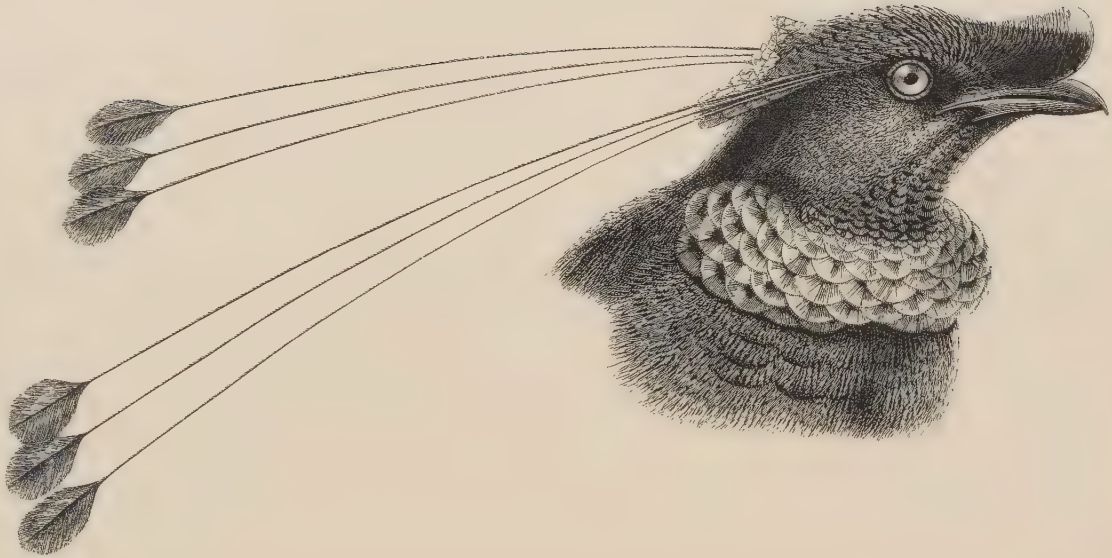
Sailing from Ternate December 18th, we arrived at Kema in North Celebes on the following day. The Dutch gun-boat *Merapi* lay at anchor, and we were pleased to meet our friend Captain Ehnle again. The port of Menado cannot be used at this season of the year, and all goods have therefore to be carried to and from that settlement over the twenty miles of indifferent road intervening. The weather, we learnt, had been the same here as at Ternate,—strong northerly and north-westerly winds with much rain,—and there were thus few inducements for us to stay, even if we had had time to do so. We accordingly got our live stock on board—a fine ox and a pig, for which we paid 40 and 2½ guilders respectively—and having eaten a farewell "rice-table" with Captain Ehnle, weighed anchor and proceeded for Sulu, passing

to the east of Limbé Island, with which my reader is already familiar as the scene of our Babirusa hunt.

Steering north-west across the little-traversed Celebes Sea, the *Marchesa* encountered a northerly swell and variable winds, but the weather was bright and sunny, and we took advantage of it to dry our New Guinea skins before finally soldering them up in tin cases. Every available sunny spot was covered with trays, and the gorgeous plumage of the kingfishers, pigeons, and parrots—for it is to these that the bright colours of the birds of this region are chiefly confined—gave the decks the appearance of a flower-bed. The Paradise birds attract attention less by the brilliancy than by the extraordinary development of their plumes. From the Arfak range we had obtained several species, which at a little distance look a uniform black. Two of these—*Lophorhina* and *Parotia*—are furnished with appendages which are, perhaps, as striking as any with which long ages of sexual selection have provided the birds of this group, but until the specimen is taken up in the hand they may pass unnoticed. In the former[1] an immense plume of feathers springs from the occipital region, and reaches to the end of the tail. It is of the deepest velvety black, shot in some lights with oily-green reflections, and with the outermost feathers slightly recurved towards the tip. The top of the head is covered with scale-like feathers of metallic green, and a shield of the same colour and nature, but of a still brighter shade, adorns the breast. The rest of the body is dull black. Any further ornament or colour would be out of place, and one feels that the beautiful creature fully deserves its appellation of the Superb Bird of Paradise.

Almost more beautiful still is *Parotia sexpennis*, the Six-shafted Bird of Paradise, which Signor D'Albertis was the first European to observe in its native jungle. The curious plumes which give the bird its specific name lie so close to the neck in the dried skin as to be almost invisible. They consist of three slender filaments springing from each side of the head and terminated by a spatulate expansion. A bar of vivid steely green across the vertex, and a peculiar tuft of metallic silver at the base of the beak—a colour which, so far as I know, is unique in the bird-world—completes the head decoration. Like *Lophorhina*, the rest of the plumage is almost entirely black, except at the upper part of the breast, which is furnished with a collar of green and bronze feathers. The tuft of silvery feathers on the

[1] The impossibility of giving all the features of this curious bird in a single illustration has led to its representation in a position which is quite possibly incorrect. As far as could be gathered from the natives, the enormous crest as it appears displayed during the courtship of the female is spread more widely, in the shape of a fan opened out to its fullest extent, and the pectoral shield being expanded in a similar manner, the head of the bird forms the centre of an irregular circle of feathers of velvety black and emerald, which completely hides the rest of the body when viewed from in front.



SIX-PLUMED BIRD OF PARADISE. (*Parotia sexpennis.*)

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forehead can be either erected, as represented in the engraving, or depressed flat against the skull, where it forms a triangle of regular shape with the apex forward.

Nearing the Sulu Islands we experienced another instance of the uncertainties of navigation in these seas. The night was dark, and on making the land we found, after a short period of doubt as to our position, that a current had set us considerably to the westward, and we thus sighted Pata Island broad on our starboard hand instead of on the port bow, as we had calculated. The *Marchesa* was soon in familiar waters, and before daybreak on the morning of December 23rd we arrived off Jolo.

The little town had altered a good deal since our first visit. A new hospital and barracks were in course of erection; the creepers had quite covered the kiosk in the Plaza, where it had been our custom to smoke and listen to the band; and the bananas had shot up to form quite respectable avenues. The digging necessitated by the improvements and the constant confinement of the place had not been without their effect upon the inhabitants. Our old friend Don Julian Parrado looked worn and ill, and no less than five of the officers had joined the great majority during our absence. Three had died of fever, but the other two, we were informed, had met their deaths "accidentally." While sipping their chocolate at the little café represented in the woodcut on page 210, one of the fanatical Sulus—the *juramentados*, as they are termed by the Spanish—who had managed unperceived to make his way into the town with his parang, approached them from behind, and in an instant the head of one of them was rolling on the ground. A downward cut laid open the shoulder of his friend, and though the bayonets of half a dozen of the coloured soldiers who happened to be near were almost immediately buried in the Sulu's body, it was too late, for the wound proved almost immediately fatal. Calling at the house of one of our friends, we were shown the parang, still covered with the blood of the unfortunate victims. "*Está à la disposicion de usted*," said our host with a bow, but we declined his offer with thanks.

We spent our Christmas at Lukut Lapas. The woods and plantations were turned into temporary bogs and the paths into little watercourses, for it was the end of the wet season, and the rain descended in torrents. The fine weather was expected with the New Year. In Sulu there are two rainy seasons, occurring at the change of the monsoons. The first rains, which begin in April, are not nearly so heavy as those ushered in by the easterly monsoon in September or October.

The plantation had increased considerably since our first visit, and many Liberian coffee-trees had been planted. They were in a thriving condition, but the Arabian coffee was evidently destined to be a failure,

as indeed was only to be expected. At the bungalow we missed our hostess's kindly face and greeting. Her life, which had been one of the strangest vicissitudes, the most stirring adventures by sea and land, was over, and she lay at rest beneath the shade of the great durian-trees behind the house.

Our parting with our Spanish friends was an amusing one. The Governor and his *aide-de-camp*, together with several other officers, rowed off to the ship to make their adieux, and we drank—with every wish for its fulfilment on our part—to our next meeting. But the

THE MARCHESA.

ceremony was not to end there. From the end of the pier two huge canoes shot suddenly out—giant "dug-outs" a hundred feet or more in length, crowded with people bearing large glittering objects in their hands. It was the band, nearly sixty strong, which had been ordered by our friend Don Julian to play us out! The sea was a little rough for such craft, and it was ludicrous to watch the desperate efforts of the musicians to retain their equilibrium and execute a difficult passage at the same time, for the boats were rounded out smoothly and were unprovided with thwarts or seats of any kind. At length they reached the calm water to leeward of the yacht, and for the first time for many months we had the pleasure of listening to some good music. It was

not for long, however. Our anchor was soon a-weigh, and waving a final farewell to our friends, we steamed slowly out of the harbour to the strains of our favourite *Malagueña.*

With the homeward voyage of the *Marchesa* I need not weary my readers. On the 3rd of January we arrived at Singapore, and two months later found ourselves in the Suez Canal. So cold did it seem to us after the damp heat of New Guinea and the Moluccas that we were glad enough to put on cloth clothes. They served to remind us that we had soon to resume other habits of civilisation. On Easter Monday, April 14th, 1884, we dropped anchor off Southampton, and the Cruise of the *Marchesa* was a thing of the past.

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THE END

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